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REPORTS

FROM

COMMITTEES:

FIFTEEN VOLUMES.

—(8.)—

PORT OF LONDON.

Session

4 *February* —— 20 *August* 1836.

VOL. XIV.

1836.

REPORTS FROM COMMITTEES:

1836.

FIFTEEN VOLUMES:—CONTENTS OF THE

EIGHTH VOLUME.

N. B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Report; *and the* Figures *at the* end of the line, *refer to the* MS. Paging *of the Volumes arranged for The House of Commons.*

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REPORT

FROM THE

SELECT COMMITTEE

ON

THE PORT OF LONDON;

TOGETHER WITH THE

MINUTES OF EVIDENCE,

AND APPENDIX.

Ordered, by The House of Commons, *to be Printed,*
12 *August* 1836.

Lunæ, 15° *die Februarii*, 1836.

Ordered, That a Select Committee be appointed to inquire into the State of the Port of London, and to report their Observations thereupon to The House.

And a Committee was appointed of,—

Mr. Poulett Thomson.
The Lord Mayor.
Mr. Alderman Wood.
Sir Charles Adam.
Mr. Fox Maule.
Mr. Angerstein.
Mr. Alsager.
Mr. Warburton.
Mr. William Crawford.
Mr. Alderman Thompson.
Mr. Labouchere.
Mr. William Williams.
Mr. George Frederick Young.
Mr. Bell.
Mr. Hutt.

Ordered, That the Committee have power to send for Persons, Papers and Records.

Ordered, That Five be the Quorum of the Committee.

Veneris, 12° *die Augusti*, 1836.

Ordered, That the Committee have power to report their Opinion, together with the Minutes of Evidence taken before them, to The House.

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PLANS.

REPORT.

THE SELECT COMMITTEE appointed to inquire into the State of the PORT OF LONDON, and to report their Observations and Opinion thereupon to The House, together with the MINUTES OF EVIDENCE taken before them, and to whom several PETITIONS were referred;—HAVE, pursuant to the Order of The House, examined the Matters to them referred, and have agreed to the following RESOLUTIONS:

1. THAT it appears to this Committee that the Navigation of the River Thames, in the Port of London, has for a great length of time been subjected to serious and increasing Obstructions, by which the Maritime Approach to the Metropolis has been impeded, the Shipping exposed to injury and needless detention, and that frequent accidents have occurred, several of which were attended with the loss of human life.

2. THAT these Obstructions have been produced by the crowded state of the River, arising from the greatly increased and still increasing Traffic and Shipping frequenting the Port, by the introduction of Steam Navigation, and especially by the Collier Tiers stationed in the Pool, and the ill-regulated manner in which Colliers have been permitted to lie at Anchor in the Stream; by Shoals and Banks, which present Impediments to the Navigation; and, finally, by the want of an efficient supervision and a more effective execution of the Harbour Service; and that although it appears to this Committee that since the period at which they commenced their inquiries an Improvement in the last respect has taken place, yet they conceive that the Public have no adequate security against its recurrence.

3. THAT this Committee are of opinion that the various conflicting jurisdictions and claims of the Admiralty, the Trinity House, and the Corporation of the City of London, over the River Thames below the Bridges, have had a most injurious effect upon the Interests of Navigation, and that it is desirable that they should be consolidated and vested in some one responsible Body, and that means should be found to provide for the removal of Shoals and Obstructions in the bed of the River.

4. THAT considering the magnitude of the Interests involved, and the pressing necessity of remedial Regulations under legislative authority, by which accidents on the River may be provided against, additional security to Property afloat afforded, and the Commerce and Navigation of the Port of London preserved and promoted, the Committee recommend that a Copy of the Minutes of Evidence taken before them, and of the Papers connected with this inquiry, be referred to the Right Honourable the Lords of the Committee of His Majesty's Privy Council for Trade, with the view that a Bill may be prepared under the authority of His Majesty's Government for consolidating, enlarging and amending the Laws for rendering more commodious and better regulating the Port

of London, and to embrace the various amendments and improved regulations required, and that such Bill be submitted to Parliament early in the ensuing Session.

5. That it is the opinion of this Committee, that for the safe and convenient transit of Shipping and Craft in the Port of London, it is expedient that a clear Passage of the width of not less than 300 feet should be maintained in the River Thames, according to the existing Bye-laws, that the Colliers at anchor in the stream should be so regulated as to prevent interruption to Ships passing up and down, and that suitable Moorings should be laid down for Colliers in the Pool, so as to secure them in their respective stations, and prevent encroachment on the waterway; and that if, in consequence of preserving a clear passage to this extent, inconvenience should result to the general Trade of the River, it appears to Your Committee that it may be desirable to encourage the construction of Collier Docks, in order to facilitate this object.

6. It further appears to Your Committee, that as a precautionary measure, and with a view to the preservation of human life, the rate of speed of Steam Vessels, navigating between Deptford and London Bridge, should be at a reduced rate, and that the attention of proprietors of Steam Vessels frequenting the River Thames should be called to this subject, as well as to the number of passengers which are received on board these boats, until the sanction of Parliament shall have been obtained to such remedial measures as shall hereafter be deemed expedient.

PROCEEDINGS OF THE COMMITTEE.

Mercurii, 17° *die Februarii*, 1836.

MEMBERS PRESENT.

Sir Charles Adam.
Captain Alsager.
Mr. Angerstein.
Mr. William Crawford.
Mr. Labouchere.
Mr. Fox Maule.
Mr. Poulett Thomson.
Mr. Warburton.
Mr. William Williams.
Mr. Alderman Wood.

Mercurii, 10° *die Augusti*, 1836.

Mr. LABOUCHERE, in the Chair.

Captain Alsager.
Mr. Angerstein.
Mr. William Crawford.
The Lord Mayor.
Mr. Alderman Thompson.
Mr. Warburton.
Mr. William Williams.

Resolutions agreed to.

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MINUTES OF EVIDENCE.

Jovis, 12° die Maii, 1836.

MEMBERS PRESENT.

Mr. Poulett Thomson.	Alderman Thompson.
Captain Alsager.	Sir Charles Adam.
Mr. Warburton.	Mr. Hutt.
Mr. Bell.	Mr. Angerstein.
The Lord Mayor.	Alderman Wood.
Mr. Williams.	Mr. Crawford.

MR. POULETT THOMSON, IN THE CHAIR.

Sir *John Hall*, called in; and Examined.

Sir *John Hall.*

12 May 1836.

1. *Chairman.*] I BELIEVE you are Chairman of a Committee of Steam-packet Proprietors and Wharfingers, and others connected with the navigation of the river Thames, appointed at a public meeting held at the London Tavern in December last?—Yes, I am.

2. Will you furnish the Committee with a copy of the resolutions adopted at that meeting?—Yes. They are as follows:

Copy of resolutions adopted on the 3d December 1835, at a public meeting of the proprietors of steam-boats, wharfingers, and others connected with the navigation of the river Thames, held at the London Tavern:—First. That this meeting is deeply impressed with a sense of the necessity of efficient means being adopted to promote the more safe navigation of the river Thames, and is satisfied that the object can only be obtained by proper regulations being enacted and duly enforced as to the mooring of the shipping, and the manner of navigating steam-packets, and all other vessels, craft and boats frequenting the more crowded part of the river. Second. That a large portion of the coasting trade with the port of London being now carried on in steam-vessels, which increasing mode of conveyance, from the despatch and punctuality with which it is conducted, is calculated to promote the prosperity of the metropolis, it becomes more than ever important to place steam navigation in the river Thames under improved regulations, so as to afford security to the public and due protection to property. Third. That with such object, the first and most essential point is a strict preservation of the free passage, of not less than 300 feet in width, through the whole course of the navigation, as now required by law, in furtherance of which means should also be adopted for causing all vessels or craft using such passage to be properly manned and navigated. Fourth. That this meeting is of opinion that while, amongst other regulations, means should be taken to restrict the speed of steam-vessels within a reasonable rate, it is equally essential to encourage the use of boats or wherries of a size or construction more suitable to the altered circumstances of the navigation. Fifth. That as these remedial measures can only be effectually adopted and enforced by the authority of the Legislature, a deputation be appointed to wait on the Secretary of State for the Home Department, to represent the expediency of the subject being brought before Parliament by His Majesty's Government, and to assure his Lordship of the sincere desire of this meeting to render every assistance in carrying that most important object into effect.

I also had the honour of being charged with the representations of a great number of the most influential merchants and ship-owners and others of London, who signed a petition to the amount of 5,700, which was presented to the corporation of London, in favour of the preservation of a passage of 300 feet, according to the existing law; and a memorial from the St. Katharine's Dock Company; also representations from the licensed pilots, wharfingers, and others connected with the navigation of the river Thames, who entrusted me with the advocacy of their interests before the Port of London Committee.

r *John Hall.*

2 May 1836.

3. Will you state to the Committee the result of your observations and experience with regard to the present state of the port of London, as it has been complained of, and also what remedies you propose with a view to improve the navigation of the port and extend its operations?—I beg permission of the Committee to read what I have committed to paper, which I beg to offer as my evidence, and as containing the result of my examination into the subject-matter of inquiry, practical knowledge, and references to public documents; and it will be more convenient for the Committee to allow this course, as it will save time and present the subject under the several heads, seeing that the subject referred to the consideration of the Committee embraces matters of great importance to the commercial and shipping interests of the United Kingdom, and particularly to those connected with the port of London.

The inquiry is understood to comprehend an investigation into the state of the navigation of the river Thames below London Bridge, into the regulations of the port, and a consideration of the best means of improving the same, with a view to afford additional and greater security to the public, and especially to shipping, craft, &c., frequenting the port of London; and further to consider of such precautionary and remedial measures as shall appear best calculated to guard against the recurrence of accidents from steam navigation within those limits.

The subject matter of inquiry may be conveniently classed under three separate heads:

First. The precautionary and remedial regulations, as before stated, to guard as far as possible against the recurrence of accidents from steam navigation, and to give additional protection to property afloat.

Second. An improvement in the construction of wherries and boats employed in the conveyance of passengers upon the river Thames below bridge, those at present in use having become unsafe from the present increased and altered mode of traffic on the river.

Third. To suggest the best means of removing and preventing obstructions to the transit of shipping, craft, &c., arising from the crowded state of the river, and particularly of the collier tiers in the pools; to devise measures for the removal of certain shoals and mud-banks, which have within these few years increased to an alarming extent, and are growing impediments to navigation; and finally, to amend the regulations of the port of London, by an improvement in the supervision and management of the harbour service, with a view to a more satisfactory performance of that important duty, and thus to secure to shipping frequenting the port suitable accommodation and a more safe and convenient transit.

The numerous and, in several instances, fatal accidents that have occurred upon the river Thames, and which during the last year have unfortunately much increased, have produced considerable excitement, and have led to a conviction of the necessity of placing steam navigation under restrictive legislative regulations. Some of those accidents have been traced to a want of proper caution in the management of the steam-vessels, whilst others have been produced by the unskilful conduct of watermen, and the unsuitable description of their wherries, and occasionally, from the obstinacy and reckless conduct of persons in charge of craft, &c. At the same time, most parties concur in opinion, that the principal cause of the loss of life, accidents and injury to property afloat between Deptford and the Tower, is attributable to the crowded and ill-regulated state of the river, particularly in the pools, arising chiefly from a wanton disregard of the bye-laws and regulations of the port, and attributable to the inefficient manner in which the harbour service is executed. The expediency of adopting regulations of a remedial character, so as to afford additional security to the public, and due protection to property, was recognised by Parliament in 1831, when a Select Committee of the House of Commons was appointed to inquire into the matter; and although their Report contained many valuable suggestions and recommendations, no legislative measures arose out of the proceedings of the Committee. But an Honourable Member of the House, Mr. Alderman Wood, has during several subsequent Sessions made attempts to obtain the sanction of Parliament to regulations upon this branch of the subject, and, in pursuance of that object, has from time to time presented Bills to regulate the navigation of steam-boats upon certain parts of the river Thames; but those Bills have never passed a third reading, as it is understood, from a general impression that it would not be practicable to give effect to some of the enactments proposed, whilst

whilst others were properly objected to by parties whose interests were likely to be seriously affected by them. Another Bill has been brought in of a similar description this Session, but contains regulations of even a more objectionable character than the former, and when examined in detail, some of them will be found impracticable.

It is under these circumstances, and from a persuasion of the absolute necessity of some effective measures being forthwith adopted by Parliament that the proprietors of steam-vessels frequenting the port of London, wharfingers, and other persons largely connected with the navigation of the river Thames, have prayed His Majesty's Government to bring the subject generally under the consideration of Parliament, and are ready to afford them their cordial co-operation in giving effect to so important a purpose.

Having classified the leading points of the subject matter of inquiry, I proceed to advert to the evils and grievances referred to, under their separate heads, and to explain the remedies proposed in each case.

First, then, as respects steam navigation in the port of London.

Some of the Returns which have been ordered by the Committee will furnish them with evidence of the extraordinary increase which has taken place within the last few years in this new and important branch of navigation.

The following statement shows the extent of such increase in the port of London:

	In the Year 1830, the Number of Voyages and Tonnage was:		In the Year 1835:	
	Vessels. *Voyages.*	Tons.	Vessels. *Voyages.*	Tons.
Foreign Trade - - -	361	73,634	1,076	266,684
Coasting ditto - -	185	48,100	699	181,740
	546	121,734	1,775	448,334

An increase in 1835, as compared with the tonnage in 1830, of 326,000 tons, equal to 368 per cent., whilst the increase in the number of steam-boats engaged in the conveyance of passengers only, in the river navigation, is equally extraordinary.

The following account shows the augmentation in the latter branch:

Years.	Number of Steam-packets.	Voyages.
1820 - - -	4 - - -	227
1830 - - -	20 - - -	2,344
1835 - - -	43 - - -	8,843

And it is worthy of notice, that such steam-boats are exempt from the port dues, and do not therefore contribute to the expense of maintaining the moorings in the port, or of the harbour service, although they make use of the moorings, and thus occupy a portion of accommodation provided at the expense (and to the exclusion) of other classes of shipping.

A considerable proportion of the coasting trade with the port of London is now carried on in vessels propelled by steam, and from the superior advantages of despatch and punctuality appertaining to that valuable and improved mode of conveyance, no doubt is entertained but that the greater portion of such branch of trade will, at no very distant period, be conducted in steam-vessels. The communication by similar means with foreign ports is also progressively and rapidly increasing; under which circumstances, it is desirable that means should be taken to allay the public excitement, by providing as much as possible against the recurrence of accidents, and affording due protection to property afloat from the injuries to which it is exposed in the crowded channel of the river. Collisions have taken place, barges, craft and boats have been swamped, and valuable property

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destroyed, from the crowded and narrow state of the passage through the pools, and human life has, in some instances, also fallen a sacrifice from such collisions, and in others, from the effects of the undulation of the water produced by the action of the paddle-wheels of steam-boats, circumstances which have been aggravated by the unnecessary velocity with which some of those vessels have been occasionally propelled. In many instances the cupidity and misconduct of owners or masters of craft, lighters and boats, have produced (and in others contributed to) injuries, from the overloading, and also at times damage; arising in other instances from the want of skill, or from the wilful misconduct of watermen, and also from the description of persons entrusted with the management of craft; whilst the risk and loss of life has been increased by the unsuitable description of most of the wherries and boats of the watermen now in use below bridge.

Various projects have been suggested with a view to remedy those evils; amongst others, the notable but extreme expedient of interdicting steam-vessels from navigating the river above Blackwall or Greenwich, a measure referred to in the alternative in some of the petitions presented to the House from the Watermen's Company, and from watermen and others; an expedient dexterously adverted to by the projectors of the London and Blackwall railways, and stated by them to be consonant with the opinions of the harbour-masters, as offering the best remedy for the evils complained of; a measure, by which the labour of those public functionaries would unquestionably be relieved, but at the sacrifice of some of the best interests of the port. A corrective of so extreme (and it will be shown), unnecessary a character, would not, it is presumed, be readily entertained, and certainly not resorted to, until all other remedial regulations shall have proved unavailing. A measure of so violent a character would involve a partial and unjust interdiction of the use of the maritime and King's highway to a most valuable branch of navigation and would, if adopted, be attended with ruinous consequences to a very large portion of the trading community of London. By such a measure, the value of wharfs between Greenwich and London Bridge would be greatly depreciated; the proprietors and occupiers of water-side property, lightermen, shopkeepers, labourers, porters, carmen, and others carrying on business upon, and in the vicinity of the banks of the Thames, would be seriously injured, and the revenues of the corporation of London greatly affected; seeing that such a scheme would unavoidably be attended with a compulsory diversion of a large proportion of the coasting trade from the seat of business to inconvenient places, situated at from five to six miles distant; whilst the congregation at Blackwall of so considerable a portion of the river navigation, and in so narrow a part of the river, already barely sufficient for the purposes of a convenient and uninterrupted passage of vessels, would assuredly render the "remedy worse than the disease." The question, therefore, in the first instance is, whether such regulations in navigation by steam cannot be devised as shall afford sufficient and satisfactory protection both as to human life and to property afloat, and thus satisfy the reasonable expectations of the public, without entertaining a proposition which (as before observed) would involve the prohibition of an improved mode of intercourse between the seat of business and the various ports of the United Kingdom, and of foreign parts. It is confidently submitted, that suitable, adequate and effective remedies may be provided, without resorting to a measure which would involve such injurious consequences to some of the best interests of the port. The first practical remedy to which the consideration of the Committee is respectfully invited is, the adoption of some regulation to diminish the speed of steam-vessels between Deptford and London Bridge; in the accomplishment of which, the proprietors of steam-vessels frequenting the port of London are most anxious to co-operate.

A difficulty, however, presents itself in giving effect to that object in the manner proposed by the Bill brought in by Mr. Alderman Wood, it being considered impracticable to regulate the rate of speed of a steam-vessel, in such a manner, as to determine the application of a penalty according to the degree of velocity with which she is propelled through the water. So many circumstances affect the question of speed: the depth of water in which the vessel is navigating; her varying draft of water, fluctuating (which it unavoidably must do) according to the weight of cargo or the number of passengers, all of which influence the resistance of the vessel, and increase or diminish, as the case may be, the dip of the paddles; the difference in speed through the water when proceeding against the stream, as compared with her navigating with the tide, or in slack water; the effect of currents and of eddies, whilst the vessel is sometimes also under the additional

additional influence of canvass; and, finally, the superior speed of some vessels, as compared with that of others; circumstances, all of which render it next to impossible to reduce the velocity of steam-vessels to a rate of speed to be determined by any fixed standard. The nearest approximation to the useful object of the regulation, and which it is considered would answer every practical purpose, appears to be by throttling the valve of the steam-pipe of the engine, under certain limitations, thus diminishing the injection of steam; a precautionary measure, which it is proposed should be adopted whenever the steam-vessel is proceeding between Deptford and London Bridge, and would produce as near an approximation as possible to half speed.

To accomplish this desirable object in a manner at once obvious and satisfactory to the public, it is recommended that an indicator should be fixed upon the deck of the steam-vessel, according to a drawing, marked (A.), which I beg leave to offer to the notice of the Committee, an apparatus of small expense; to be subject during use to the periodical inspection of some responsible officer (the customs surveyor for the Act of Navigation, for instance), so as to prevent any alteration in the valve or index, which might falsify the indicator on deck; and such officer should also inspect the throttle-valve in the first instance, and grant a certificate to the captain of the boat of its being perfect and fit for use. A periodical inspection to take place, and the result of the examination to be indorsed by him from time to time on the certificate, such document to be produced upon demand made by the public for inspection. The indicator would afford means to every person on deck of satisfying himself at any time, when within the prescribed limits, that not more than the limited quantity of steam was being admitted to the engines; to be regulated by an experiment of the greatest speed of the vessel at load water-mark, through the water, with, and also against the tide; the experiment to be made by the public officer before referred to, and the certificate of approval not to be granted until he shall be fully satisfied of the accuracy of the indicator and perfection of the machinery.

To effect the purpose proposed it would be requisite to apply to each engine a separate throttle-valve, to be connected with the indices on deck; the object, however, might also be answered by the use of the existing valves, if they be found perfect; and as it would not be advisable entirely to deprive the attendants on the engines of a power over the index valves (as circumstances might arise under which a sudden change from half speed to whole speed would be requisite), means should be provided of opening the valves with the same facility as the ordinary throttle-valve, but at the same time indicating the change. The rods, &c., essential to retain the valve in the regulative position should be enclosed in a case, and kept locked by the commander of the boat, to prevent surreptitious alterations; and for the further purpose of attracting immediate attention to any alteration of the valve from the proper position, it is suggested that a bell be fixed inside the index case on deck, which should simultaneously be struck by the same action which moved the valve. The means of doing this would be very simple, and add to the efficiency of the check, by the publicity thus to be given. It will be seen from the drawing in question that the throttle-valve is connected by means of two rods passing through the deck to a half wheel in the index case, the lower part of the wheel being cut into a form which enables the spring roller below it to retain it in the positions of shut, half steam, or wide open, and which the index point will show. Behind the arc is fixed the clock-bell proposed, which would be struck by a hammer at the back of the half wheel whenever the valve is moved from the half-open position, thereby exciting observation and inviting the attention of the persons on deck. Such a precautionary regulation would afford sufficient prevention of the use of too great a velocity of motion within the limits described, and should be enforced by a penalty of not less than 10*l.* upon the captain or person in charge of the steam-vessel, and to be recoverable in a summary manner. A power should, however, be given, similar to that proposed in the Bill of Mr. Alderman Wood, to remit the penalty, upon proof to the satisfaction of the magistrate that the throttle was closed (in the manner, and at the time as directed) for the purpose of avoiding an accident, and upon satisfactory proof also that it was absolutely necessary for the safety of the vessel or security of property. An exception should also be provided in favour of steam-vessels whilst towing ships, as their speed is of a very limited character whilst so employed.

It is further recommended, under the circumstances of the crowded part of the river called the Lower Pool, that no steam-vessel shall be allowed to receive on

Sir *John Hall.*

12 May 1836.

board or disembark any passenger or goods between Queen's Stairs, Rotherhithe, and Cuckold's Point, and that the paddle-wheels of a steam-boat navigating within the port of London shall be stopped whenever a boat with passengers intended to be put on board, or a boat which shall have been hailed from the steam-boat to take in passengers, shall approach within the distance of such boat's length; the paddle-wheels not to be put in motion again until after the boat shall have cast off. And, further, that no steam-boat on the river Thames or Medway shall be allowed to carry more than three passengers for every ton of her burthen, the latter to be regulated by the number of tons admeasurement, according to the Register Act, but without deduction or allowance for engine-room. Children under the age of 12 months not to be included; and two children, each being under 14 years of age but above seven, or three children, each being under seven, to be accounted as one passenger.

That every steam-boat navigating the river shall have the captain, mate or pilot, stationed on one of the paddle-boxes, and one person stationed forward to look out, over and above the requisite person or persons at the rudder tiller-wheel, and shall also have her name painted in large letters, outside, on each of the paddle-boxes.

That after dark a brilliant white light shall be exhibited at the mast head, and one light, coloured red, on each of the paddle-boxes; and that the fourth regulation suggested by the Committee of the House of Commons on Steam Navigation, in page 6 of the Report previously referred to, as respects the putting of the helm a-starboard respectively, whenever steam-vessels approach each other stem on, be adopted; and finally, every steam-vessel on the river Thames carrying passengers to have one boat in tow, to be ready for use in case of accident, but no other boat or boats to be made fast to her whilst under weigh, save and except one other boat belonging to the pilot, or person on board in charge of the vessel. These regulations, in so far as regards the lights and mode of using the helm, it is conceived are preferable to those proposed by the pilotage commission.

The next head of the inquiry relates to the description of wherries employed in plying and conveying passengers on the river Thames, and which from their construction are unsuitable to the present increased traffic and altered mode of navigation.

By an Act of the 7th and 8th Geo. 4, c. 75, the licensing of wherries and boats for the conveyance of passengers on the river Thames is placed generally under the control and management of the Watermen's Company, with the exception of such wherries and boats as are manned by mariners, for which licences may be granted by the Trinity Corporation. The dimensions and burden of the wherries or boats, according to the regulations contained in the bye-laws framed and published by those bodies respectively, are in both instances alike; and it is worthy of notice that in the year 1555, at a time when the risk of navigating the river was infinitely less than it is at present, the wherries and boats were, by an Act of the 2d and 3d of Philip and Mary, required not only to be of larger dimensions than those now in use, but were limited, according to the words of the Act, to the carrying of "two persons on one side tight," being only four in number. A description of prize wherries has also got into use, which at no time were, or can be fit for conveying passengers below bridge.

Wherries now licensed to carry passengers, exclusive of 56 lbs. of luggage to each, are of three classes, namely, first, boats to carry 8 persons; second, ditto ditto 6 persons; third, ditto ditto 4 persons.

Dimensions of the Boats.

	Length of Keel.		Breadth.		Depth.		Burthen.
	Ft.	*In.*	*Ft.*	*In.*	*Ft.*	*In.*	
First Class,	20	6	4	6	1	6	21
Second ditto,	20	6	4	5½	1	5	18
Third ditto	20	6	4	5	1	4	15

It will be seen that the length of keel is in each case the same, but the width and depth increases according to the number of passengers to be carried. No licence is allowed to be granted to any freeman of the company (being Gravesend watermen) to use any wherry or boat for carrying more than ten persons unless they shall

shall first produce a licence from the corporation of Gravesend, with a certificate also of the parties being fit persons for that purpose.

The number of licences granted by the Watermen's Company to wherries below bridge, and which were in force on the 1st of January last, is 2,085, divided in the following classes:

Wherries to carry 8 persons - - - - -	1,318
Ditto ditto 6 persons - - - - -	671
Ditto ditto 4 persons - - - - -	96
Total - - -	2,085

The number of similar licences granted by the Trinity Corporation is,

For wherries to carry 6 persons - - - - -	94
Ditto ditto 4 persons - - - - -	9
Total - - -	103

Grand total, 2,188 licences; but it is considered that a considerable number of such licences are not at present in use, and that many of the parties who hold others are, from age or infirmity, incompetent, and their boats not in a proper condition for work. An examination should be immediately instituted by the Watermen's Company, and also by the Trinity Corporation, into the circumstances referred to, as to them respectively appertain, and the licences held by persons who may be found not eligible, and those for boats not fit for use, to be cancelled.

An improvement in the construction of wherries, from the introduction of steam navigation and the crowded state of the river, has become absolutely necessary for the protection of the lives of His Majesty's subjects; the insufficiency of them has indeed been matter of notoriety, long before the introduction of steam navigation, from the increased traffic, and no person can therefore reasonably object to a review of the regulations which affect this important branch of the inquiry.

It appears that the Watermen's Company, impressed with a proper sense of the necessity of some amendment, have proposed to the Court of Aldermen an alteration in the dimensions and form of wherries, and that lately an amended bye-law has been submitted, after having been approved of by the Court of Aldermen, to the Judges for their sanction accordingly; but the dimensions proposed in such amended bye-law are considered by practical men to be objectionable, particularly as to the second and third class of skiffs, which are more suitable for ships' boats to ply between vessels lying in tiers and the shore than for use on the river Thames generally, as additional security may be obtained without rendering the boat unsuitable for rowing against the stream, as would be the case particularly in respect to the alteration proposed in two of the classes of wherries as recommended.

Experienced boat-builders have been consulted upon the construction of an improved wherry, adhering as near as possible to the present form; and although the speed must in a slight degree be affected by the proposed alteration from the increased width, given with a view to additional security, still sufficient velocity for all reasonable purposes may still be given to such wherry; and I beg to submit for the inspection of the Committee a plan, marked (B.), accompanied by a model of an improved wherry, the plan describing the scantling, frame, and dimensions and expense, preserving the usual form, with the exception of the stern, which is upon an improved construction, and the boat capable of carrying eight persons, with a free board of 12 inches, the wherry now in use for a like purpose when so laden having a free board only of from three to four inches.

This improved wherry, it is suggested, should be used below London Bridge, and would afford great additional security, and may be built at about the same expense as the present wherries.

The price of the proposed improved wherry, built of the best English oak, and fitted with backboard, rudder, iron work, &c., a pair of skulls, boat-hook, and staff, and two coats of paint, complete, ready for immediate use, according to the plan (B.), put in, would be for No. 1, 24*l.*; No. 2, 23*l.*; No. 3, 22*l.*

I beg also to deliver in a copy of the proposed bye-law of the Watermen's Company, marked (D.), with a subjoined statement of the dimensions of the form of the wherry referred to by me, which will enable the Committee to judge of the comparative merits.

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(D).

Plan of new wherry recommended in contradistinction to the wherry proposed by the Watermen's Company, according to their amended bye-law.

Dimensions of square-sterned wherries to carry eight, six and four persons, with 12 inches freeboard to top of washstreak.

1st. Size to carry eight persons, with 12 inches freeboard; the length of the keel to be 18 feet; extreme length, 23 feet 6 inches; extreme breadth, 4 feet 9 inches; depth at main thwart, 1 foot 9 inches; depth top of washstreak, 2 feet; breadth of stern, 2 feet 5 inches; breadth of floor middle of state-room on the third land, 3 feet; rise of do. at the same land, 3 ½ inches; breadth of floor foreside of main thwart, 2 feet 10 inches; rise of floor same land, 4 inches; breadth of floor foreside of spray thwart, 2 feet; rise of floor same land, 8 inches; breadth of floor foreside of backboard thwart, 2 feet 9 inches; rise of floor same land, 4 ½ inches; distance from outside of stern to fore-edge of backboard thwart, 5 feet 6 inches; distance from top of stern to after-edge of main thwart, 11 feet 3 inches; burthen 2 tons; length of state-room, 6 feet 10 inches. Price 24 *l.*

2d. Size to carry six persons, with 12 inch freeboard; the length of keel to be 17 feet 6 inches; extreme length, 23 feet; breadth, 4 feet 8 inches; depth at main thwart top of washstreak, 1 foot 11 inches; depth at main thwart, 1 foot 8 inches; breadth of stern, 2 feet 3 inches; breadth of floor middle of state-room on the third land, 2 feet 10 inches; rise of floor at the same land, 3 ½ inches; breadth of floor foreside of main thwart, 2 feet 8 ½ inches; rise of floor at the same land, 4 inches; breadth of floor foreside of spray thwart, 1 foot 11 inches; rise of floor at the same land, 8 inches; breadth of floor foreside of backboard thwart, 2 feet 7 ½ inches; rise of floor at the same land, 4 ½ inches; distance from outside of stern to fore-edge of backboard thwart, 5 feet 4 inches; distance from top of stern to after-edge of main thwart, 11 feet; length of state-room, 6 feet 9 inches. Price, 23 *l.*; burthen, 1 ½ ton.

3d. Size to carry four persons, with 12 inches freeboard; the length of the keel to be 17 feet; extreme length, 22 feet 6 inches; breadth, 4 feet 7 inches; depth at main thwart, 1 foot 7 inches; depth on the top of washstreak, 1 foot 10 inches; breadth of stern, 2 feet 1 inch; breadth of floor in middle of state-room on the third land, 2 feet 8 inches; rise of floor on the same land, 3 ½ inches; breadth of floor on the foreside of the main thwart, 2 feet 7 ½ inches; rise of floor on the same land, 4 inches; breadth of floor on the foreside of the spray thwart, 1 foot 10 inches; rise of floor on the same land, 8 inches; breadth of floor on the foreside backboard thwart, 2 feet 6 ½ inches; rise of floor on the same land 4 ½ inches; distance

New bye-laws made and recommended by the Court of Master Wardens and Assistants of the Company of Watermen and Lightermen of the river Thames, and now before the Judges for their approval.

1st. That the burthen, size and dimensions of a skiff to carry eight persons shall be as follows: that is to say, the length of the keel, 18 feet at least; the extreme breadth in the midships 5 feet 4 inches at least; the depth in the midships, 2 feet at least; the breadth of the floor at third lands in the midships of the state-room, 3 feet 2 inches at least; the rise of the floor at third lands, in the midships of the state-room, not to exceed 4 inches; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 feet 10 inches at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 5 inches, and the half of another inch; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 2 feet 10 inches at least; and the rise of the floor at third lands, at the timber on the foreside of the spray thwart, not to exceed 6 inches; and such skiff shall be of the burthen of two tons at least.

2d. That the burthen, size and dimensions of a skiff to carry six persons shall be as follows: that is to say, the length of her keel, 16 feet at least; the extreme breadth in the midships, 5 feet 4 inches at least; the depth in the midships, 1 foot 11 inches at least; the breadth of the floor at third lands, in the midships of the state-room, 3 feet 1 inch at least; the rise of the floor at third lands, in the midships of the state-room, not to exceed 4 inches; the breadth of the floor at third lands, at the timber on the foreside of the backboard thwart, 2 feet 7 inches at least; the rise of the floor at third lands, at the timber on the foreside of the backboard thwart, not to exceed 7 inches; the breadth of the floor at third lands, at the timber on the foreside of the spray thwart, 2 feet 9 inches at least; and the rise of the floor at third lands, at the timber on the foreside of the spray thwart, not to exceed 6 inches, and a quarter of another inch; and such last-mentioned skiff shall be of the burthen of 1 ½ tons at least.

3d. That the burthen, size and dimensions of a skiff to carry four persons shall be as follows: that is to say, the length of the keel, 14 feet at least; the extreme breadth in the midships, 5 feet at least; the depth in the midships 1 foot 10 inches at least; the breadth of the floor at third lands, in the midships of the state-room, 2 feet 8 inches at least; the rise of the floor at third lands, in the midships of the state-room, not to exceed 4 inches; the breadth of the floor at third lands, at the timber on the foreside of the backboard thwart, 2 feet 4 inches at least; the rise of the floor at third lands, at the timber on the foreside of the backboard thwart, not to exceed 4 inches, and the half of another inch; the breadth of the floor at

third

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distance from the outside of the stern to the fore-edge of the backboard thwart, 5 feet 2 inches; distance from the top of stern to the after-edge of main thwart, 10 feet 10 inches; length of state-room, 6 feet 7 inches; price, 22 *l.*; burthen, one ton.

third lands, at the timber at the foreside of the spray thwart, 2 feet 5 inches at least; and the rise of the floor at third lands, at the timber on the foreside of the spray thwart, not to exceed 5 inches, and the half of another inch; and such last-mentioned skiff shall be of the burthen of one ton at least."

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Under the circumstances previously stated, it is desirable that no licence should be granted for a boat to carry passengers, below bridge, of less dimensions than those described on the plan (B.); and with a view to further security and simplicity in practice, it is strongly recommended that there be only one class of boats licensed to carry passengers, to be of the description and dimensions recommended under class No. 1, and that the number of passengers to be carried in such boat (exclusive of the waterman) do not exceed six, and 56 lbs. of luggage to each passenger, when required; if limited to six persons, the freeboard would be increased to 14 inches. This limitation, however, not to apply to boats of a larger size, fit to carry more than eight; which must be regulated in the licensing, according to her burthen and capacity. It is submitted whether, under the circumstances of such limitation and the introduction of a better description of boat, an increase in some of the fares between London Bridge and Greenwich might not be expedient, to which the owners of wherries built according to the improved plan, and licensed as such, should be alone entitled; the wherries in use, as ferry-boats, between Greenwich and London being of a larger description than those in common use, may be separately considered.

At the same time the watermen will consider whether such increase of fares might not possibly operate to discourage the employment of boats on the river, within the limits named, seeing that a railroad communication with Greenwich is nearly established, and that two projects for similar means of conveyance to Blackwall are in contemplation, whilst it is notorious that the watermen are constantly receiving more than their regular fares, particularly for short trips, from an impression with the public that the fares are in many instances too low. Such an advantage, if deemed expedient, with the preference it is presumed that the public would readily give to the improved boats, would operate as a double encouragement to their construction, and improve the condition of the watermen; all which deserves the serious attention of the Watermen's Company. The regulating of the fares, however, under the powers of 7 & 8 Geo. 4, c. 75, rests with the Court of Aldermen, subject to the sanction of the Privy Council.

The proprietors of the steam-vessels frequenting the port, feeling that the introduction of steam navigation has in a great degree contributed to the insecurity of the present wherry, are, it is understood, disposed to raise a fund by voluntary contribution, to be placed under certain regulations and limitations, at the disposal of the Watermen's Company for distribution; a portion of which to be applied, in the first place, in premiums to the proprietors of the first 250 boats to be constructed according to the improved principle, and next to afford some relief during a limited period, or to be applied in aid of the purchase of a new wherry for such indigent watermen now possessing wherries, who shall satisfactorily prove their inability to supply themselves with new boats.

Whilst upon this branch of the subject, it is essential to notice the necessity of some better regulation to prevent lighters and craft from navigating the river, particularly in the narrow waters, with cargoes in an insecure and overloaded state, and insufficiently manned, or not properly conducted; it being a constant practice (with the object of saving labour to those in charge) to drive up athwart the stream, by which the navigation is seriously and unnecessarily obstructed; whereas, the person in charge ought to sweep such craft head-up with the flood, or head-down with the ebb; and all barges, lighters, and craft above 35 tons, ought to be manned with not less than two duly skilled and competent men, and if above 100 tons by three.

Although this matter will more properly form the subject of regulation in an improved code of bye-laws, it is indispensable that such an evil which has long been complained of, should be brought under the notice of the Committee in an especial manner; undecked loaded craft should also be required to ship a temporary washboard, of not less than one foot in depth; and the craft ought at no time to have less than 15 inches of freeboard.

To give additional effect to the regulation, which has for its object to prevent

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the risk from the motion of the paddle-wheels whilst boats are alongside steam-vessels, it is suggested that a bye-law, under the Watermen's Act, be framed, inflicting a penalty upon any waterman who shall put his boat, containing any passenger or passengers, alongside a steam-boat before the paddle-wheels of the steam-boat shall have been stopped.

The next and last branch of the inquiry relates to obstructions to the transit of shipping, arising from a crowded state of the river, and from the ill regulated mooring of vessels, attributable chiefly to a disregard of the existing bye-laws and regulations, but principally to the inefficient manner in which the harbour service has been performed, aggravated by additional impediments from shoals and mud banks, all of which form grievances that have been the subject of frequent complaint, and of repeated but unsuccessful representations to the constituted authorities.

The expediency of revising the regulations and management of the harbour service, and of providing effective remedies, cannot under such circumstances be questioned, whilst the want of a more efficient supervision has been productive of serious injury to the commercial and shipping interests.

As an instance of the manner in which the supervision has been exercised, I beg shortly to advert once more to the Report of the Select Committee of this Honourable House, upon steam navigation, dated the 14th October 1831; in page 6 of which, the neglect of the harbour-masters in the execution of their duty is especially observed upon, and the attention of the authorities of the Corporation of London invited to the matter; and although the Lords of the Committee of Privy Council for Trade, in the following year, brought the subject under the notice of the corporation of London, with a view to an early remedy, yet nearly four years have been allowed to elapse without any satisfactory redress having been afforded;—whilst the supervision of the harbour service has been of so lax and inefficient a character, it cannot create surprise that the duties have been neglected.

The necessity of a public inquiry into the grievances complained of, produced by a state of things reflecting seriously upon the administration of the harbour service, has become the more urgent from the progressive increase which has taken place in the number of ships frequenting the Port of London, and the introduction of steam navigation, circumstances which have rendered increased vigilance and attention in regulating the shipping in the port additionally important, but in respect to which the public expectation has been grievously disappointed.

To bring this particular branch of the subject under the notice of this Honourable Committee in as convenient a form as possible, it will be expedient to refer to the proceedings that led originally to the corporation of London having been entrusted with matters connected with the navigation of the river, beyond those which are especially connected with the conservancy of the Thames.

In the year 1792, in consequence of the crowded state of the pools, inquiries were instituted, and in 1796 Committees of both Houses of Parliament were appointed to consider the best means of providing additional accommodation for the increasing trade and shipping of the port. In 1799 an Act passed, intituled "An Act for rendering more commodious and for better regulating the port of London," (39 Geo. 3, c. 69,) by which authority was given for the construction of the West India Docks, and the making of a canal across the Isle of Dogs; when a power was also granted to the Lord Mayor of London, for the time being, as conservator of the river Thames, to appoint harbour-masters for the port, subject to their qualifications being first approved of by the Elder Brethren of the Trinity corporation. The Act further places the moorings in the river under the management of the corporation of London, the interests of Lord Gwydir, and other of the proprietors of moorings, having been purchased for the public accommodation and improvement of the port under the authority of that Act; and it further authorises the corporation to frame bye-laws and regulations for rendering the port more commodious, to be first approved of by the Elder Brethren of the Trinity House, and afterwards sanctioned by the judges.

By the 64th section of the Act, the corporation of London are also empowered to appoint committees to carry those provisions of the Act referred to into effect; and a committee, under the designation of "The Navigation and Port of London Committee," is annually apointed, such mixed committee being charged principally with the execution of duties and management relating to the Thames navigation above

above London Bridge, under particular Acts relating especially to that branch of the service.

The grand committee is composed of 45 members, 15 of them aldermen, and 30 common councilmen, changeable annually, a certain number going out periodically; no choice is made in the election of those who, from their avocations, commercial acquirements, or knowledge of the river and shipping would be best qualified for the duties, but the selection, it is understood, is governed according to certain regulations sanctioned by the Court of Common Council with reference to the number of common councilmen in each ward, and are of a rotary character.

It will be seen that the legal powers possessed by the corporation of London, as respects the business of the port of London below London Bridge (delegated to the committee), are of a limited character; they are, however, important in so far as relates to the framing of bye-laws for regulating the navigation of the river, and the authority which the committee under such powers possess of enforcing the bye-laws, orders and regulations; but the corporation having no immediate power to enforce, by punishment, obedience on the part of the harbour-masters to those orders and regulations, the only remedy they possess is to report cases of neglect of duty, or of misconduct of those public functionaries, to the Elder Brethren of the Trinity corporation, who, upon proof, would certify to the Lord Mayor, who must in that case dismiss, according to the provisions of the 79th section of 39 Geo. 3, c. 69. By the 3d section of 10 Geo. 4, c. 120 (so much of the 78th section of the Act therein previously referred to being repealed), the Lord Mayor has acquired additional powers, namely, of "removal or suspension," those of dismissal being continued; but as respects removal or suspension, the power extends only to such harbour-masters appointed after the passing of the Act, and which received the Royal Assent on the 19th June 1829.

The harbour-masters now in office, having been appointed previous to the passing of such Act, are consequently exempt from the intermediate punishment by suspension. It is obvious that the authorities to whom the responsible duty of framing bye-laws, and the execution of them is entrusted, ought to be practically acquainted with the subject, and thus be capable of forming their own judgment, without being, as they have for some time been, influenced by the opinions of the public officers to whom the executive business of the harbour-service is confided, and of whose neglect the public have so loudly complained; duties by subordinates are never efficiently performed, unless controlled and regulated by a supervision of a practical, firm, and self-confident character.

The regulation of the moorings of the river is likewise subject to the inspection and approbation of the Elder Brethren of the Trinity corporation, but the harbour-masters possess, by the Acts of Parliament referred to, almost unlimited authority to regulate the shipping, craft, &c. in the port of London (subject always to the due observance of the bye-laws), but without being amenable to, or controlled by any legal or effective executive practical supervision.

The Act of 10 Geo. 4, c. 126, intituled "An Act for altering and amending 39 Geo. 3, c. 69," before referred to, was obtained in consequence of additional powers having been found necessary for the better regulating of the harbour service; but experience has since shown that a sufficient remedy has not been provided.

The laws generally relating to the improvement of the port of London, require therefore further revision, and additional powers are also necessary;—and, with a view to general convenience, perspicuity and uniformity, those laws ought to be consolidated and amended.

Another Act, of 10 Geo. 4, c. 130, repeals so much of 39 Geo. 3, c. 69, as relates to the City Canal, Isle of Dogs; and provides for the sale thereof, to the West India Dock Company, who are now the proprietors. The proceeds (under the authority of that Act) have been carried to the credit of the Consolidated Fund, in consideration of which, the port dues are released from the charge for interest upon the debt, for advances made towards the improvement of the port, in pursuance of the last-named and other Acts;—for the repayment of which, and also for creating a fund to reimburse the principal monies so advanced, and providing a sum for the payment of the annual expense of the harbour service and moorings, those dues were originally established.

The Act of 4 & 5 of His present Majesty, c. 32, provides for a reduction in the amount of port dues, and (after defraying the expenses of the harbour establishment,

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blishment, &c.) regulates the application of the surplus, which is estimated, upon an average, will amount from 4,000 *l.* to 5,000 *l.* per annum.

The receipts from port dues during 17 months, from 25 July 1834, the period when the altered law took effect, were 14,725 *l.* 19 *s.* 5 *d.*; and for one year, from the 25th July 1834, to the like period in 1835, they amounted to 10,985 *l.* 16 *s.* 9 *d.* The expenses of the harbour service last year exceeded 7,000 *l.*, and upon an average of the last seven years, amounted to 6,365 *l.*; a considerable sum, seeing that so little has been expended upon improved moorings; and as the Committee of the House of Commons, on the Foreign Trade of the country, in their Report, dated the 18th of June 1824, page 13, estimated the same (after the reductions then recommended) at about 5,000 *l.* per annum, it may deserve inquiry whether the charge is not susceptible of reduction.

In the years 1824 and 1825 the obstruction to navigation, particularly in the pools (proved to have arisen chiefly from colliers), and the necessity of providing additional accommodation to the commerce of the port, again occupied the attention of both Houses of Parliament; when, upon conclusive evidence of the urgent necessity of relief, Acts were passed for constructing collier docks in the Isle of Dogs, the South London Docks, and the Saint Katharine Docks;—the two former undertakings have not however been carried into effect.

Although the Collier Dock Act was obtained, the project was, unfortunately for the interests of the port, never prosecuted; partly in consequence of the Committee of the House of Commons having refused to sanction a compulsory regulation, by which, from the necessity of clearing the stream, it was proposed to compel colliers to discharge in collier docks; and further, from some differences of opinion existing between the promoters, relative to the purchase of the City Canal, afterwards sold to the West India Dock Company, which also led to a difficulty in completing the subscription. The land in the Isle of Dogs, however, offers great capability for providing such accommodation, and comparatively at a very moderate expense. Vessels would be admitted into the docks by entrances from Blackwall Reach, and thus relieve the river navigation from colliers above Greenwich, whilst lighters would be let out through locks near Mill Wall, Limehouse Reach; and it is understood that some of the proprietors of the soil, and others, are prepared to apply to Parliament in the ensuing Session, for a revival of the powers of the Act (which is expired), with the object of constructing a coal dock. Other similar projects are also in contemplation, which I will presently refer to.

The expectation of the mercantile public having, from the circumstances referred to, been grievously disappointed, and the manner in which the harbour service was continued to be performed very unsatisfactory, the necessity of a further inquiry into, and an amendment of the bye-laws and regulations of the port was considered imperative.

In 1827 and 1828 the Port of London Committee instituted an inquiry accordingly; which, in 1829, amongst other improvements, led to a bye-law, by which it was ordained that "A clear passage through the pools should be kept, of a width of not less than 300 feet;" which regulation received the approval of the Elder Brethren of the Trinity corporation, and was confirmed by the judges, according to the statute, was afterwards published, and is now the law. The harbour-masters, nevertheless have, from time to time, neglected to enforce a remedial regulation of such vital importance to the commerce and shipping of the port, under the inexcusable and frivolous pretence, that it is impracticable to prevent colliers from encroaching on the passage; whereas the sole cause of such encroachment is attributable to neglect, in having permitted from time to time, and in innumerable instances, from 21 to 28 colliers to be moored in certain tiers, in which 18, and in some 20 only, are allowed by the bye-laws;—much of the confusion and impediment to the navigation might, it is true, have been avoided by laying down proper moorings for colliers in the pools; but under such circumstances it was the imperative duty of the harbour-masters to have represented the matter to the constituted authorities, who would, it is conceived, from a just regard to the accommodation of the shipping of the port, have directed proper moorings to be provided accordingly.

In consequence, however, of the reprehensible negligence referred to, the Select Committee of the Honourable the House of Commons upon Steam Navigation, in 1831, expressed their deliberate opinion, "That as respected the obstructions and accidents on the river, mischief and inconvenience had resulted from the harbour-

harbour-masters not having duly attended to and enforced the regulation as to the passage of 300 feet;" and the Honourable Committee, as a consequence, recommended that the proper city authorities should forthwith have their attention called to the subject, with a view to their applying such early remedies as the circumstances demanded.

The Lords of the Committee of Privy Council for Trade, in the following year, finding that no steps had been taken to remedy the grievance, and to enforce obedience, caused, as before stated, a communication to be made to the corporation of London accordingly; whilst the Port Committee, continuing to receive various remonstrances upon the subject, instituted a further investigation into the matter; and on the 12th of April 1833, in consequence of conclusive evidence of continued neglect, and of the perfect practicability of enforcing the bye-law, they issued a peremptory order, of which the following is a copy:

"Ordered, That the Harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way, of not less than 300 feet, are scrupulously enforced, and particularly in the Lower Pool; and that they do not allow at any time a greater number of ships or vessels being moored at the several tiers than is directed by the bye-laws."

This order, however, having for its object the enforcing of the existing law, shared the same fate with most of the orders and directions of the Committee upon the subject, and was treated by the harbour-masters with perfect inattention; and designated by them, in one of their reports to the Port Committee, as being "harsh and unnecessary," which is illustrative of the manner in which the harbour-masters treat the constituted and superior authorities,—and such representations being passed over without notice, proves also a total absence of discipline, and of a firm and effective supervision.

The Port Committee, upon concluding the investigation in question, determined upon several improvements and amendments in the regulations of the port, and a new code of bye-laws was thereupon framed and recommended for adoption, which in a considerable degree provided remedies for the grievances complained of; whilst the Committee at the same time recorded their determination to adhere to the regulation requiring "a passage of not less than 300 feet in width" to be kept for the transit of shipping; and a Report from them to that effect, to the Court of Common Council, was agreed to in the month of November 1833, and signed accordingly.

In the commencement, however, of the year 1834, the periodical appointment of a new committee took place; and notwithstanding repeated remonstrances were made to them, the proceedings of the preceding committees were in an unaccountable manner suffered to remain in abeyance; when, in February 1835, another committee having, as usual, been elected, it was, in the month of April following, accidentally discovered that they had determined (upon a verbal suggestion of the harbour-masters, and in direct opposition to the previous decisions of committees, and without any communication with the interests concerned in the navigation of the river) to recommend that the width of passage of 300 feet through the pools should be diminished to 200 feet (afterwards altered to 250), and the number of colliers in the tiers increased; thus threatening an encroachment and obstruction of a twofold and aggravated character, under circumstances, too, of a great and increasing trade, which called rather for additional means and facilities of approach, than of contraction.

This unexpected proceeding, involving an alteration in a bye-law of such vital importance, and in direct opposition to the evidence given, and the deliberate decisions of former committees, was adopted by the Port Committee of 1835, without any fresh evidence, and without the slightest communication whatsoever with the commercial or shipping interests of the port. So extraordinary a state of things led to the memorialising of the Court of Common Council, and the subject was referred by them to the Port Committee for further inquiry.

The memorial prayed that the law, requiring a passage of 300 feet in width to be kept, should not be altered, but scrupulously enforced; and the prayer was supported by a numerous body of witnesses, all possessing great practical knowledge of the navigation of the river, and by another memorial, signed in the short space of nine days by nearly 5,700 of the leading merchants, ship-owners, bankers, traders, and others representing millions of property, and sustained respectively by representations from the London Dock Company, the St. Katherine Dock Company, the Grand Surrey Canal Dock Company, Society of Merchants trading to the

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Continent, the inhabitants of Gravesend, and from the steam-boat proprietors, and a very large proportion also of the licensed pilots residing in London, Gravesend, Dover, Margate, Sheerness, &c., and further from several of the most respectable London wharfingers, and from experienced navigators and others daily frequenting the river. Notwithstanding so powerful an expression of opinion, and the assurance given that the diminution of the width of the passage of 300 feet would prove most detrimental to the commercial and shipping interests, as it had unfortunately been found in practice,—such passage having been frequently contracted (for any available purposes) to a width not exceeding 100 feet only, and from a much greater number of colliers having been suffered to be moored in the tiers than sanctioned by the bye-laws, a report was agreed upon in the Port Committee, upon a division of seven to five, a majority consisting of less than one-sixth the number of which the whole of the committee is composed, adhering to their opinion, that the width of passage should be diminished from 300 to 250 feet, which would have the effect of aggravating, in a serious degree, the difficulties of navigation; an objectionable measure, recommended too at a period, when it had been conclusively proved before them that the injury to shipping and frequency of accidents had arisen chiefly from the unnecessarily crowded and neglected state of the passage through the pools. Upon this decision being known, a public meeting was convened by advertisement, and held at the London Tavern, of owners of steam-boats, ship-owners, wharfingers, and others connected with the navigation of the port, when strong resolutions were entered into and communicated to His Majesty's Government, of the necessity of preserving a passage in the river for the transit of shipping, of not less than 300 feet in width; a copy of which resolutions I have put in. And a memorial was also presented to the Court of Common Council, to the like effect, from the wharfingers on the south side of the river.

Under these circumstances a further appeal was made to the Court of Common Council, and on the 3rd November last they were at length pleased to suspend the progress of so destructive a measure, by calling, in the first instance, for the minutes of the evidence received by the Port Committee upon this most important question, the printing of which was then ordered; and on the 21st of April, after an intervention of about five months, the court met specially to discuss the subject, when it was determined to postpone the consideration of the proposed alteration and new code of bye-laws, under the circumstance of a Committee of Parliament having been appointed to inquire into the regulations of the port; but an almost unanimous declaration of opinion at the same time from the members present in favour of the passage of 300 feet in width being preserved, and that the regulation should be scrupulously enforced, led to an assurance from the Right Honourable the Lord Mayor, as conservator of the river, and an undertaking from some of the members of the Port Committee, that such passage should in future be kept, and the harbour-masters compelled to do their duty. It may here be observed, that considering the Court of Common Council to be the legally constituted authority from whom the Port Committee derive their powers, and having the means of correcting at once the errors into which the delegated authorities had fallen, it appears somewhat extraordinary, and particularly as almost a unanimous sentiment prevailed in court of the objectionable character of the recommendation of the Port Committee, that the court did not at once determine the practical question as to the 300 feet passage, by recording their dissent, and issuing directions that the law be enforced. During the inquiry before the Port Committee, a plan was submitted for removing permanently the tiers of colliers from the north side to the south shore of the river in the Lower Pool, but in consequence of some differences of opinion, and an impression that a measure of a less extreme character might afford relief, an experiment, as related to a more limited accommodation to colliers in the pools, and better regulations, was deemed deserving of a trial; and a modified plan, of which I beg to put in a copy marked C, was substituted, by which (with the assent of the London Dock Company as to mooring six colliers within the privilege of the entrance to the London Docks, and without disturbing the stations of the collier tiers) permanent accommodation could be found for 163 colliers in the Lower Pool, between Church Hole and the Regent's Canal entrance, preserving at the same time the passage of 300 feet in width, as provided for by law. I take this opportunity of declaring my conviction, founded upon a practical knowledge of the port, acquired during upwards of 37 years' experience, that with proper moorings, and under regulations efficiently enforced, no difficulty exists in preserving a passage of even a greater width, and at the same time afford sufficient

and

and convenient accommodation to the shipping generally now frequenting the port of London. The average accommodation required at the moorings and at the wharfs may be stated at about 450 vessels, whereas convenient means of such accommodation, under proper regulations, can be found for about 700; but certainly not for more colliers, for the special reasons previously stated, and hereafter further explained. But to effect so important an object, the preservation of the width of passage should be paramount, and made the fundamental regulation; the stationing of tiers, and berthing of ships to be subordinate; not more than 18 ships ought to be stationed in any one tier; the outermost ships in the tiers should exhibit in the main shrouds a piece of white canvass of three feet square, as a signal to any vessel coming up not to make fast outside, but to sheer inside, or remove to other tiers, according to their draft of water; and the principal regulations in question should be embodied in an Act, as under such a system, if properly operated, the regulation of the shipping, and preservation of a safe and convenient transit, would become a duty of comparative ease, and also relieve the commercial and shipping interests from the painful and arduous task of being compelled to watch and re-discuss those leading and important regulations, with a body, who are little qualified from their habits of business, to protect in such matters those great and public interests; besides,—additional accommodation for about 60 sail of colliers, when waiting for turns, might without any difficulty be found in Limehouse Reach, and the vicinity of Deptford; several of the moorings there having been laid down for commercial purposes, and the expense paid for out of the port dues; so that all merchant ships have a right to their use. The King's officer at Deptford, however, objects to any merchant ships mooring in front of the Government yards, for which it is considered no justifiable grounds exist, as most of the moorings are unoccupied by King's ships or craft; his refusal is attempted to be justified under the authority of a Regulation, adopted by the Admiralty on the 27th June 1827, under the Act of 54 Geo. 3, c. 159, which empowers the Lord High Admiral, or the Lords of the Admiralty, to make bye-laws and regulations for securing access to all King's yards, moorings, &c. It is doubted however whether the order in question has acquired the formality of a bye-law;—the regulation would not be objected to provided those moorings were actually occupied or required by King's ships; but in the absence thereof, no reasonable grounds exist for withholding such a valuable species of accommodation from the shipping frequenting the port. If the King's service at any time rendered the use of those moorings necessary, the merchant ships might be removed at any time upon a few hours' notice.

The Legislature, with a view to additional and improved accommodation to the commerce of the port, encouraged and sanctioned at various times an expenditure of upwards of seven millions in the construction of the London Docks, the St. Katharine Docks, and the Grand Surrey Canal Docks, whose entrances are all above the Lower Pool, and where the chief obstructions to the navigation of the river exist; a passage, from its intricacy and difficulty, technically designated by pilots and mariners, when proceeding through the pool, "threading the needle." It follows, that even upon that ground alone, safe and convenient approaches to those great public and useful establishments ought to be secured; and it is to Parliament therefore that the commercial and shipping interests and dock proprietors have at length been driven to appeal, not only for redress, but with a view to prevent further obstructions, and contemplated additional encroachments, all of which would equally affect the communication with the Custom-house, the legal quays, sufferance wharfs, and other places of business on the banks of the Thames above Limehouse; a measure, therefore, in which all those and other interests connected with the commerce of the City of London, are as deeply concerned as any of the upper dock establishments, interests, all of which must participate, in a greater or less degree, in the advantage resulting from an unimpaired preservation of the only maritime approach to the seat of business. It is indeed a question of national importance, and not, as it has been insidiously represented, one of a mere local character, or intended to serve partial or private interests,—London being designed, to use an emphatic observation of the late and justly celebrated Mr. Pitt, "to be the emporium of the world."

Having thus far disposed of the question relating to the passage of 300 feet, and to which neither the coal trade (to which a clear passage is of equal importance) nor any other branch of navigation, that I am aware of, have any objection to offer, but, on the contrary, desire that such a means of approach should be maintained, it is to be observed that, provided the coal trade shall be satisfied

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with a permanent accommodation in the stream for 163 colliers at one and the same time, according to the arrangement proposed, (an extent of accommodation stated by Mr. Horne, the chairman of the committee of the coal trade, as exceeding present demands, and as ample indeed as is consistent with a due regard to the several other important interests of the port,) no immediate interference with the coal trade will, under existing circumstances be required, either as respects the place, or manner of discharge; subject however to any improvement that may be deemed expedient in the general regulations. The manner of mooring the colliers will properly be matter for the immediate consideration of those who may hereafter be empowered to frame and give effect to a new code of bye-laws, and with the details of which the time of this Honourable Committee need not therefore be occupied.

The increase that has taken place in the coal trade in the port of London is truly remarkable; the trade already occupies a large proportion of the stream in the river, and is also of a description which, from the injury that would be done by coal dust to general merchandise, particularly corn, provisions, &c., renders it necessary that colliers should be congregated and kept separate from other vessels, and in a particular part also of the river or place;—whilst the particular regulations of the coal market, and those under which the trade is conducted, contributing as they do to an unnecessary detention of colliers in the river below the places of delivery, which regulations are attended also with much delay in the delivery of their cargoes, render it deserving the attention of the Committee, whether a suitable opportunity does not now present itself for considering at once what additional accommodation should be provided for the future and increased demands of the whole, or any principal part of the coal trade; a measure of precaution which, from the progressive increase of consumption in and about the metropolis, arising from an augmented population, increasing manufactories, and enlarged steam navigation, must otherwise soon force itself irresistibly upon the attention of Parliament, and under less favourable cirumstances of arrangement.

It is curious, that so early as in the year 1790, the impediments and obstructions occasioned by the colliers in the pools, produced great and loud complaints; and it is matter of notoriety that they have continued to do so up to the present time, and in an increased degree, without any effective remedy having been applied.

It appears from official accounts before Parliament, that in the year 1792 the number of colliers that discharged in the port of London was 3,871, which has progressively increased, when, in the year 1835, the number amounted to 7,980, importing 2,298,812 tons of coals, exceeding, as compared with the year 1825 (ten years previous), 2,400 ships, and about 450,000 tons of coals.

During the last two years, however, the increase has been in a much greater ratio, the number during the last year, as compared with 1833, exhibiting an increase of 881 colliers and 288,403 tons of coals.

The means of accommodation for the discharge of coal ships in the stream above Limehouse, has, under the existing practice, at length nearly reached their maximum; and whilst anticipating the necessity of increased accommodation, and of more suitable places of discharge, it will be useful to develope the practicable working of the present objectionable system.

The total number of vessels with coals that entered the port of London in 1835 was	7,980	
Deduct the number of ships with less than whole cargoes	504	
Total number of colliers		7,476
The number of colliers discharged between Gravesend and Deptford stated at	306	
The number delivered in the Regent's Canal at	348	
Number computed to have delivered during the year, in tiers between Church Hole Stairs and the Tower, commonly called Newcastle traders	1,040	
Deduct		1,694
Remaining number of colliers which have delivered their cargoes in the London pools between the Regent's Canal entrance and Church Hole		5,782

According

According to the custom of the coal market, not sanctioned by Act of Parliament, but regulated by an irresponsible body, sales in the market are limited at times to a certain number of cargoes, and subject to the delivery only, in the option of the buyer, of 49 tons from each ship per day; and according to rather a practice of novel introduction, small and separate parcels of coals, of the same cargo, are now sold from market day to day, the merchant thus enjoying the privilege of converting the ship into a floating warehouse, and to regulate the discharge by the demand of his customers, without any regard to the inconvenience to which the public are thus subjected. Allow, at the rate of delivery referred to, seven days for unloading a ship in the stream (the cargoes averaging upon the whole 300 tons of coal per ship), and including the time for stiffening of such of them as cannot shift without ballast (many do without), gives an average of 111 colliers working at one time; allow for 30 to arrive to feed the market, and exchange berths with such light ships as are ready to depart being five more in the aggregate than the number required and stated by the clerk to the coal merchants' committee, accommodation will only be required for about 140 ships at one time; whereas, according to the plan referred to, provision has been made for 163, whilst the coal trade have declared that they will be satisfied with 150.

It is also important to notice that the maximum number of colliers, according to the statement of the clerk to the coal committee, discharging at one time in the pools has never exceeded 150, whereas the minimum is only 19; the space therefore, which is provided for 163, is even beyond any just claim that can be made for accommodation under proper regulations.

From the foregoing statement, it is evident that, provided colliers were discharged (and which they might be with ease in even less than half the time now usually occupied for that purpose, instances having occurred in which upwards of 200 tons of coal have been discharged in one day), the obstruction in the river, and in the pools more particularly, would be diminished one half; and therefore no reasonable pretext exists for the King's highway being converted into a wet dock, and the passage obstructed to such an extent as it now is, by floating coal warehouses and wharfs, to the prejudice of all other branches of navigation frequenting the port of London.

According to the evidence given by the harbour-masters before a Committee of the House of Commons upon the Isle of Dogs Collier Dock Bill in 1825, the average detention of a collier in the poolway was then proved to be about 14 days; it is now stated by the coal trade to be only 7 days; but the former, it is feared, is nearer the truth, demurrage being sometimes paid for detaining ships; whereas, according to the foregoing estimate, such a vessel might with convenience be discharged in three days.

It has been urged on the part of the coal trade, as an excuse for the delay complained of, that as they are in the practice of using their craft as "store lighters," they cannot spare a sufficient number to accelerate the delivery in the manner suggested. But the public interests are not to be sacrificed to such a system: the coal merchant ought to land the coals and clear his craft. The reprehensible practice of converting lighters into coal stores and floating wharfs on the river Thames, particularly as respects the river below bridge, where every part of the stream and in-shore passages are imperatively wanted for the transit of shipping, craft, &c., and thus producing obstruction, whilst the system also encourages crime, cannot be too strongly condemned. The extent to which the plunderage of coals from such lighters is carried on, is hardly credible, but of daily practice. It is not unusual to find, in many places, from 8 to 10 and even more coal craft moored alongside each other abreast of the coal wharfs, &c., by which the waterway below bridge is obstructed, and the in-shore passages at times rendered almost impassable. I have counted upwards of 100 loaded coal craft, besides light ones, lying moored in that manner between Shadwell Dock Stairs and the Regent's Canal entrance, north shore, which objectionable congregation of craft, forming a floating wharf, accommodating some thousands of tons of coals, and in the most confined part of the river, contributes in a great degree to the tiers of shipping in the lower pool being pressed over to the south shore, and thus encroach upon the passage which by law has been set apart for the transit shipping, whilst this additional grievance at the same time affords another proof of the inefficient manner in which the harbour-masters perform their duty.

The Committee will recollect that, in 1799, when the increase of the trade of the port rendered additional accommodation necessary, Parliament recognised the

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principle of compulsory commercial regulations, by requiring ships in the East India trade, West India trade and American trade, and others laden with particular enumerated goods, to seek accommodation in wet docks. This principle, if the public interests require it, would no doubt be equally adopted under existing circumstances, but it is considered that an arrangement of an intermediate character, and less objectionable, will meet the exigency of the case.

If the Committee shall be satisfied that the coal trade must be expected to increase, as it undoubtedly will, it deserves their serious consideration, whether, with a view prospectively to augmented demands for additional accommodation, encouragement should not at once be given to the construction of collier docks, it being certain that such a mode of relief must, in a couple of years, for the reasons stated, of necessity be resorted to.

The question then is, as to the most suitable manner of providing for such a contingency.

The construction of wet docks for the reception and discharge of colliers has long occupied the attention of the public, and is a subject entitled even to the attention of the coal trade themselves, in the event of other parties not being disposed to provide such accommodation; but it is well known that several projects are now in progress for affording so important an improvement to the port of London. It would be more advantageous to the public that such accommodation should be provided by other than the coal trade, it being desirable to diminish rather than to add to the means of monopoly.

It is also worthy of notice, that some of the coal owners in the north have already pressed upon the corporation of London a claim for such an accommodation at their hands, free from expense, upon the ground that they, the corporation, as conservators of the Thames, are in that character, and also as a municipal body possessing exclusive privileges, deriving a large revenue from coals; and hence it is considered that they are bound to provide suitable accommodation for the shipping by which the article is water-borne and brought to market.

The interests of the mine proprietors, the shipowner, and the consumers of coal, alike require the accommodation of coal docks; and the state of the navigation of the River Thames imperiously demands it.

The difficulty of combining all the advantages, in connexion with the various interests, has hitherto been the principal difficulty of carrying such an undertaking into effect; but this objection would, to a considerable extent, be removed by the adoption of the plan by the corporation of London. If, however, they shall decline to afford it, it may be stated that applications to Parliament from individual projectors for powers to construct collier docks are now pending, and that others of a desirable description are in contemplation, and deserve every encouragement. Coal being an article of the first necessity, it is desirable that it should be supplied to the public at the least possible charge, and in the best condition.

The coal owner is entitled to receive a remunerating price for the cost of his production, the shipowner for his freight, consistent with due economy, and the consumer should be enabled to purchase coals, which is become an article of necessity, on moderate terms. The present regulations of the coal market, and the objectionable system of floating warehouses and wharfs, and use of store-craft, appear, however, to interfere with those truly important objects, and to favour high prices by preventing competition.

It is considered that collier docks if constructed above Deptford on the west or south side, and also on the north side of the river above Blackwall, would afford the accommodation required, and produce considerable improvement in the delivery of coals; the ships unloaded at less cost, and with greater despatch, and with perfect security from damage, and the public supplied at a cheaper rate, without affecting the legitimate interests of the factor, or the reasonable profit to the coal merchant; whilst the trade would be relieved from charges occasioned by the employment of superfluous and unnecessarily high priced labour, by which the consumer would be benefited, with the certainty also of a constant and regular supply, as well during winter as in summer, and of having delivered to him the actual coals purchased, in the same state as when discharged from the ship, and at a reduced price.

The harbour-masters in 1825 gave evidence before the Committee of the House of Commons that the pools were insufficient to accommodate the colliers, and declared those vessels, stationed where they now are, to be "a public nuisance;" and, further, that any attempt on their parts to enforce the bye-laws, by means of penalties,

penalties, " would occupy too much of their time," and if complaints were frequently made, the harbour-masters " would always be in hot water ;" all of which is evidence of the reasons why the service has been so inefficiently performed ; and they declared further, that collier docks would be the only efficient remedy for the evils complained of.

The harbour-masters appear to have acted upon the impression alluded to, as they have, with one or two exceptions only, never called in aid the penal powers of the Acts of Parliament, but have permitted the captains of colliers and other vessels to offend and violate the law from time to time with impunity.

The improvement in the navigation of the river would unquestionably be materially promoted by the removal of a portion of the colliers from the stream, and the improper extent of loaded coal craft from the in-shore passages below bridge, by which the loss of many lives, and much damage to shipping and barges would be prevented.

It is confidently believed that if collier docks were once formed, the prejudice against them, which to a certain extent exists, would subside, and the objections, almost entirely of a private and interested character, yield to the extraordinary advantages and security such accommodation would afford ; neither would the depth of water in the pool be diminished, as it has been erroneously alleged, if the collier tiers between Shadwell Stairs and the Regent's Canal entrance were removed (as the current in that part runs the strongest) ; provided the inequalities of the bed of the river in those parts were removed, and which might be done at a comparatively trifling expense, the strength of the stream would always keep it clean. Artificial means of scouring are not necessary in such cases, although they are of great service in deepening the water wherever tiers of shipping are moored in slack water ;—besides, the absurdity of endaavouring to keep a deep-water passage for navigation, by placing tiers of ships across it, is too obvious to require comment. The passage in use for the transit of ships through the pool to the southward of the tiers does not fill up; the depth remains the same, as the ebb-tide runs strong throughout it, and being the narrowest part of the river below bridge.

The Act of the 1 & 2 Will. IV. regulates the vend and delivery of coals in London and Westminster ; and by the 32d section the Court of Aldermen are empowered to make bye-laws to regulate the coal market, and the officers to be there employed, and all persons coming thereto, or transacting business therein ; but no such bye-laws have been yet framed, upon the ground, as it has been stated, " that they were not considered necessary," but chiefly, as it is believed, that as the Act will, as respects many of its provisions, expire the year after next, and a general revision of the same will then be necessary. In the meantime, the selecting of the weighers, appointments which constitute a most valuable patronage, without any legislative authority or regulation, or control, without also any bond taken, or security required from the weighers for honest and good behaviour, whereas they are, from circumstances, open to great temptation ; the limiting and determining also the number of colliers only whose cargoes shall be sold each market day ; and further, the terms and modes of delivery, &c., are all regulated by a committee, consisting of 18 buyers (factors) and sellers, elected annually by the body, without any legislative authority, and without the interest of the consumer of coals being in any manner represented. From a want of wholesome bye-laws and regulations the public are thus subjected to an irresponsible management, which has contributed to some of the grievances which form the objects of this inquiry, and might, by possibility, be rendered subservient to the views of some of the coal proprietors in the north.

With a view to an effective remedy, embracing also one of a prospective character, in so far as relates to the navigation of the river, I suggest that no colliers be permitted to unload in the stream between Durand's Wharf, Limehouse Reach, and the entrance to the Regent's Canal, that part of the river being at present unsuitable for such a purpose, and that the number of colliers to be permitted to discharge in the stream above the Regent's Canal shall not at any one time exceed 163 ; that a power be given by Parliament to the Lords of the Privy Council, that from and after the 1st day of January 1838, should collier docks have been then formed, or so soon after as any shall have been formed, and ready for the reception of such vessels, to diminish, by Order in Council, from time to time, the number of colliers to be allowed to discharge in the stream ; and with a view to afford protection to the coal trade, the shipowners and the public against

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unreasonable charges or rates, a clause be inserted in every Collier Dock Bill that may be passed, such clause to take effect and continue during the time any such Order in Council shall be in force, compelling the proprietors of such docks to unload (if required) not less than 100 tons of coals per day from each vessel, and restricting the charge for unloading coals to a sum at per ton not exceeding the amount payable for such discharge in the pools in the port of London at the time of the issuing of the Order in Council, and that no greater sum than 3*d.* per ton register shall be charged on any ship, coal-laden, entering such dock to discharge, such vessel to be entitled to the use thereof during 14 days; if remaining longer in dock to pay rent at and after the rate of 1 *d.* per ton per week, but nothing to prevent coal ships from discharging alongside of wharfs. To this moderate tonnage rate the shipowner could not (nor is it considered would) object, it having been satisfactorily proved before a Committee of this Honourable House in 1825, that the injury from general wear and tear to ground tackle, &c., and from other damage sustained by a collier every time she discharges in the pool, amounts to from 4 *l.* to 5 *l.*

The necessity of some prospective provision of the character suggested, with a view to the future and permanent preservation of the maritime approach to the metropolis, and an uninterupted communication with the port, appears unquestionable, particularly when the official returns to Parliament show that the number of merchant vessels that entered the port of London, which in the year 1797 was about 11,000, during the last year amounted to about 26,000 (of which 4,463 were accommodated in wet docks), to which add 4,483 fishing vessels, besides an immense number of craft, &c.; a considerable proportion of which employed in the foreign trade being also accommodated in the docks, which for such purposes are also daily converted into lighter ponds free from charge, a relief granted to the navigation of the river at the expense of the dock proprietors.

The port committee are also in the practice of appropriating most valuable parts of the river to lighter tiers, to the exclusion of shipping, and from which revenues are derived by the corporation and appropriated to purposes above bridge; an appropriation which is objectionable, and considered to be illegal, those moorings being paid for, and the maintenance defrayed out of the dues levied upon shipping entering the port.

Such moorings might be laid down for that purpose in certain other parts of the river where from the shallowness of the water ships could not conveniently moor, and additional accommodation thus provided to coasting and other vessels.

All coasters entering the port chiefly laden with corn are exempt from the port dues, although they occupy a considerable portion of the moorings, to the exclusion of vessels who contribute towards their maintenance; this exemption extending also to all steam-packets and vessels carrying passengers, makes the impost the heavier upon other coasting ships, and vessels in the foreign trade. If the dues were levied upon all, the surplus which it is proposed should be applied to the removal of shoals and mud-banks would be considerably increased.

I will now proceed to submit to the Committee the remedy proposed with respect to the future and improved management of the port of London generally, and which will be found to be of a simple but effective character, and without interfering in any essential degree with the corporation of London, or in any manner with the conservancy of the river Thames.

It has been stated that the municipal body of London are charged with the framing of the bye-laws for regulating the port, and that the approving jurisdiction is with the Elder Brethren of the Trinity Corporation, who in that capacity have no power to originate, but merely to approve or dissent.

The inconvenience, trouble, vexation and delay attending the discussion of bye-laws which relate to matters so intimately connected with the management of shipping, and the regulation of the navigation of the river, with a body of gentlemen who, however respectable as tradesmen in their respective avocations, cannot be expected to possess the degree of practical information so essential to the forming of a correct conception of such matters, and the unsatisfactory manner in which the port committees have lately treated subjects of such deep interest to the commerce and shipping of London, have led to a conviction of the absolute necessity of some amendment. Hence, it is suggested that great advantages would arise from transferring from the port committee to the Elder Brethren of the corporation of the Trinity-house the power of originating and framing of those bye-laws,

bye-laws, and of regulating the moorings in the river Thames, placing the appellate jurisdiction with the Lords of the Privy Council.

It is considered that such an arrangement could not be reasonably objected to by the corporation of London; but, on the contrary, that the deep interest they have in the prosperity of the commerce of the port will insure their concurrence in an improvement, which at the same time would relieve the port committee from a very onerous duty, and materially promote the trade and navigation of the port; whilst it will not be questioned that municipal privileges, whether corporate, or under the sanction of the Legislature for special purposes, ought not to be allowed to impede the progress of commercial benefit; trade being the parent of revenue and of opulence, and whatever tends to give encouragement and facility to the latter, will afford security and increase to the former. The inefficiency of the port committee in its general composition is not now mooted for the first time; it was brought under the notice of the Committee of the House of Commons on Foreign Trade in 1824; and in the minutes of evidence annexed to their Report, the opinion to that effect of Captain Ludlam and Captain Murray, at that time harbour-masters of the port, will be found.

In practice, much disadvantage is experienced from the business at the meetings of the navigation committee (above bridge) being always first disposed of, leaving all matters relating to the port of London to the last. The effect of this arrangement is, that most of the members of the committee in attendance at the commencement of business usually depart, and when the business relating to the port of London is called on, very few are present, and nearly all of those who remain generally consist of members who do not possess much experience in such matters, and are therefore led by the harbour-masters, some of whom are usually present with the intended object to assist in their deliberations.

It is, however, an act of justice to a few of the gentlemen of the corporation who have been occasional members of the port committee, to bear testimony to their perseverance, and of their anxious desire to perform the duties in a manner satisfactory to the important interests involved; but their opinions and efforts have in most instances been rendered inoperative by the preponderance of members who had not the good fortune to possess equal qualifications for the avocation. In addition to which, the rotatory mode of election deprives the committee frequently of most valuable assistance, as some of the members who, by great assiduity, have acquired a considerable degree of information upon the particular subject under consideration, are, by the operation of a rotatory appointment, prevented from continuing their services to the public.

The Elder Brethren of the Trinity Corporation, it is true, have a power to inquire into any matter of complaint of the neglect or misconduct of the harbour-masters; but if the offence be proved, the punishment imposed by the Act is, upon certification to that effect, "peremptory dismissal," without any power of mitigation. The severity of the punishment has deterred many persons from lodging complaints; and experience has shown, that without some practical executive superintending power over the harbour-masters, any attempt at an effective remedy would be hopeless; and it is also worthy of notice that, notwithstanding the multiplied proofs received by the port committee from time to time of misconduct, no representations have in any one instance been made by them to the Elder Brethren of the Trinity Corporation, or any intermediate redress afforded.

By the Act of 54 Geo. 3, c. 159, the Lord High Admiral, or three or more of the commissioners for executing the office of Lord High Admiral are authorized, in any port or place where there are docks, dock-yards, arsenals, wharfs, or King's moorings, to establish rules and regulations as to the mooring, anchoring, placing, &c. of ships, so as to have free and safe ingress, egress and regress, unto, into, to, and from such ports or places, and with that object to appoint a King's harbour-master, who shall be empowered to superintend and enforce obedience to such rules, orders and regulations. No such officer has hitherto been appointed for the port of London.

It is suggested, that under the special circumstances, and with a view of securing to the public the benefit of an efficient performance of the harbour service, that the powers of the Act ought to be enlarged, and rendered suitable to the present case, and that a King's harbour-master should be appointed for the river Thames, whose salary (to be fixed by the Lords of the Treasury) shall be paid in moieties by the Admiralty, and out of the port-dues, such King's officer to be

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the superintending harbour-master, and to control the conduct of the other harbour-masters for the time being, and whose special duty it should be to see that the bye-laws and regulations of the port are duly enforced, and that the other harbour-masters perform their duty, by affording every possible attention and accommodation to the shipping in the port, and further to regulate, in the most convenient and efficient manner, the places in the river, between Gravesend and Deptford, where ships shall only be permitted to anchor to stop tide, and colliers wait for turns, which may be easily regulated by fixing guide-posts on the banks of the river, denoting the places set apart for that purpose. The King's and superintending harbour-master to be accountable to the Lords of the Admiralty as respects the regulation of King's ships and moorings, and to the Elder Brethren of the Trinity Corporation in so far as relates to merchant shipping and the commercial port moorings, to whom he should report respectively whenever circumstances render any representation upon the state of the port, or as regards the harbour service, necessary, and to be subject to their directions, as the case may be. Much advantage would also be derived if the very effective force of the Thames police were to be empowered to assist in the removing of obstructions to the navigation, and afford aid to the harbour service in enforcing the bye-laws and regulations of the port; a service, in respect to which, unless attended with a breach of the peace, they do not consider themselves bound to assist or interfere in.

The arrangements generally, and the bye-laws and regulations by which the harbour-masters are in future to be governed, should be provided for in a new code of bye-laws.

The appointment of a King's superintending harbour-master would not interfere with the conservancy of the river Thames, nor with the patronage of the Lord Mayor, but rather give effect to those important purposes. It would be necessary, with a view to the public interests, that a power should be vested in the Elder Brethren of the Trinity Corporation, subject to the control of the Lords of the Council, to determine, whenever any vacancy shall occur in the harbour service, (distinct from the King's or superintending harbour-master,) whether the number of other harbour-masters may not be reduced; and if such should be their opinion and receive the sanction of the Lords of the Privy Council, upon a notification to that effect being transmitted to the chief magistrate of London, such vacancy not to be filled up. It is remarkable that no provision is made in any of the Acts of Parliament for regulating the amount of salaries of the harbour-masters, or those of the other officers, clerks, or servants upon the establishment of the harbour service; it is therefore deemed necessary that the Lords of the Treasury should in future be empowered to regulate the same, and, if they see fit, to diminish and regulate existing salaries.

The duties of the port committee, interwoven as they are with those of the navigation committee, the latter being constituted under Acts of Parliament limiting their powers to above London Bridge, would under the arrangement proposed still continue to exercise their functions as a body, and might retain the supervision and settlement, if it be thought fit, of the account of receipts and disbursements relating to the harbour service.

As respects the shoals and mud-banks, which are hourly increasing, and of a formidable and growing character, those obstructions are, as it appears, without any practical existing legal remedy.

The principal shoals between Bow-creek, Blackwall and the Tower, are, Bow-creek shoal, Gun shoal, Ropeground shoal, Blackwall.

First sluice, Isle of Dogs.

Saundersness Point.

Crowley's wharf, Greenwich.

Whiting's shoal, Limehouse Reach.

Limekiln Dock shoal, and mud-bank off Cuckold's Point, and along the west shore, Limehouse.

The Act of the 3 Geo. 4, c. 3. recites the former Acts relating to the lastage and ballastage in the river Thames, and vests the right thereof in the Trinity Corporation, who decline, however, to remove such shoals and banks unless "the material shall be suitable for ballast" and sale.

According to the 12th sec. of the grant of Charles 2, in the 17th year of his reign, which conveys to the Trinity Corporation the exclusive right of ballastage in the river Thames below bridge, it was unquestionably contemplated that they should also "cleanse the river, so much tending to the benefit of the commonwealth;

wealth; for the more speedy and effectual performance and perfecting and accomplishment of which" the crown gave to the corporation "all contributions, fines and forfeitures which had been taken, or should thereafter be set or imposed upon any person or persons, city or town corporate, by all or any Acts of Parliament, commission or commissioners of sewers or otherwise, to be applied to the removing of shelves and other annoyances in the said river." But a different appropriation of those fines, &c., having been since authorized by various Acts of Parliament, regard not having been paid, as it would appear, to the appropriation referred to and purposes to which they are specially assigned under the grant, it is supposed that the Trinity Corporation consider themselves released from the obligation.

It is, however, but an act of justice to the Elder Brethren of the corporation to bear testimony to the disposition shown by them upon several occasions to render casual aid, under emergencies, in the removing of portions of some of the shoals and banks, although not within the immediate conditional, or obligatory duties imposed by the charter.

The corporation of London (although the conservators of the river Thames) contend that they are not by law required to remove such obstructions below bridge, having, as they allege, no funds legally applicable to the purpose. But it is obvious that they have a paramount interest in preserving the approaches to the port unimpaired, as they derive annually upwards of 50,000 *l.* from tolls upon coals, corn, fish, seeds, vegetables, fruit, roots, &c., and all other measurable goods, most of which are conveyed water-borne on the Thames, to be sold in the London markets, whilst the corporation of London lay claim also, under the charter of Henry the 6th, to the right in the banks and soil of the same, subject of course to the power of the corporation of the Trinity House to dredge for ballast below bridge.

The corporation of London are also levying fines and taking rents for works and erections upon and near to the banks of the river below bridge, upon the ground stated, and, as alleged, to preserve a recognition of the jurisdiction, which rather increases the equitable claim the public have upon them to remove the obstructions referred to. But considering that they have the sole right of management of the Thames above bridge, they should, for the reasons stated, not permit the introduction of an objectionable system of dredging for gravel above bridge, which is productive of serious injury to the navigation below. Large steam dredging machines have been permitted to raise gravel in many parts of the river to the westward of London Bridge, appropriated by contractors to the making of concrete for railroads and other purposes, the finer particles and the sand being dropped through sieve-shoots or riddles into the stream, and carried down on the ebb-tide, which, together with the sand and silt washed down after rain from the Macadamised streets, and emitted into the stream through the common sewers, form a sediment, and increase the banks and shoals below bridge to an alarming extent; whilst it must also be noticed, that the contractors for the New London Bridge did shoot into the river on the ebb-tide immense quantities of rubbish, notwithstanding frequent representations to the London Bridge Committee from wharfingers and others upon the subject.

The value of the river Thames to the corporation of London is strongly expressed in the charter granting the tolls in question. *See* page 1742 of the 1 & 2 Will. 4, c. 76, in which the following words (recited from the charter) are to be found, "That because it was notoriously well known that the river Thames was so necessary, convenient and useful to the city of London aforesaid, that without the said river the said city could not long subsist, flourish, or continue."

And further, to show the estimation in which the advantages derivable from the said river was held by the corporation itself, it appears from Fuller's Worthies of England, "That when King James the 1st offended the city, and threatened to remove his court to another place, the Lord Mayor boldly enough told him, 'Your Majesty may remove the court at your pleasure, but, thank God, you cannot remove the river Thames;'" a river which has been constantly and justly deemed the pride of the country.

It may be observed, that an extraordinary anomaly exists in respect to any proceedings of a legal remedial character, as regards the removal of nuisances, as no indictment could be successfully prosecuted to conviction for a common nuisance of the description referred to, seeing that the conservators of the river Thames, according to the jurisdiction claimed, must in such a case be the prosecutors; whilst it is at the same time considered that they are themselves legally respon-

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sible for the abatement. A question, however, may be raised whether an indictment in the name of the King against the lord conservator of the river Thames would not lie, for omitting to cause such obstructions to the King's highway to be removed.

It may be further stated, that an equitable and implied, if not legal, obligation exists with the corporation of London to remove, or to contribute to the expense of removing, those shoals and mud-banks, and particularly the dangerous obstructions to navigation produced by several of the causeways in various parts of the river below bridge, and also from the custom of breaking up large ships on the hard alongside of wharfs in the narrowest part of the river, deriving, as the corporation do, large revenues from the beneficial use of the Thames.

The port of London committee cannot legally apply any of the surplus monies arising from the port dues to the removal of shoals and mud-banks, except in so far as may be "immediately connected with the maintaining, repairing, altering and renewing the moorings, and other necessary costs and expenses of regulating the port, and the ships and vessels therein;" whereas most of the shoals and mud-banks in question are too far apart from the regular moorings to bring the remedy within such an interpretation of the powers of the Act as would justify such an application of the monies.

It is however to be observed, that when the shoal in Blackwall Reach (which consisted principally of rock or concrete) was removed, about 35 years ago, under the direction of the corporation of London, the expenses were defrayed by monies advanced from the Consolidated Fund, under the authority of the 43 Geo. 3, c. 124, and 47 Geo. 3, c. 31, specially sanctioned by a Treasury Minute.

This branch of the inquiry, it will be seen, is not the least important, as it never could be intended or can be tolerated, that the maritime (King's) highway to the metropolis should be choked and rendered useless by such obstructions without some remedy; and unless means be taken for their immediate removal, the commerce and navigation of the port of London must in time be suspended and diverted to other places, even to the continental ports.

It is consequently recommended that the sanction of Parliament be obtained to the application of the annual surplus tonnage dues (which it is estimated will amount to between 4,000 *l.* and 5,000 *l.* a year, as before stated,) to the purposes of removing the shoals and mud-banks above Bugby's-hole, and below London Bridge, and keeping the river clear; but as the removal of those impediments to navigation admits of no delay, a power should be given by the proposed Act to the Lords of the Treasury to make advances to the Trinity Corporation for the purpose in question, upon the security of the surplus port dues; and it is further suggested, that a negotiation should be opened with the corporation of London, who, in consideration of the great interest they possess in the preservation of a free and unobstructed approach, would, it is hoped, be induced to contribute a sum annually for the like purposes, such sums of money to be placed under the management of the Elder Brethren of the Trinity Corporation for the objects referred to, it being manifest that they possess means, through their ballast establishment, of giving effect to the objects at a much less expense than could be perfected by any other mode.

And, finally, it is respectfully submitted, that with a view to all these objects, and to provide suitable remedies, a Bill should be brought in to consolidate, enlarge and amend the laws for rendering more commodious, and better regulating the port of London, to embrace the various amendments and improved regulations which have been suggested. And with the object of bringing them under the consideration of the Committee in the most convenient form, I have condensed the same under the several heads, and the particulars will be found in the accompanying memorandum annexed, thus furnishing briefly the outlines of a Bill accordingly.

Leading Heads of a Bill to amend and enlarge the Powers of several Acts for rendering more commodious, and for better regulating the Port of London.

Acts 39 G. 3, c. 69; 10 G. 4, c. 124; 10 G. 4, c. 130; 4 & 5 Will. 4, c. 32.

1. Consolidate, amend and enlarge the powers of the several Acts for rendering more commodious, and for better regulating the port of London.

2. Repeal so much of the provisions of the several recited Acts as relate to the moorings and mooring-chains in the river Thames, and as respects the harbour service of the port of London, and re-enact so much thereof as shall not be inconsistent with the following

lowing amendments, and to provide specially for the remedial regulations hereinafter referred to. Sir *John Hall.*

(A). The supervision and management of the moorings in the river Thames to be placed under the superintendence of the Elder Brethren of the Trinity corporation. 12 May 1836.

(B). Power to be given to the Elder Brethren of the Trinity corporation to make bye-laws, rules, orders and regulations for the good government of the port of London, and of the harbour service, subject to the approval of the Lords of His Majesty's Privy Council, and sanction of the judges.

(C). Copies of intended bye-laws to be made public, and to be submitted to the Privy Council for their approval; to be had and obtained previous to the same being submitted to the judges and allowed.

(D). General powers to be given the Elder Brethren of the Trinity corporation to control and direct the harbour-masters, and conveying to them the superintendence of the harbour service, with a power to suspend the harbour-masters, during which their pay shall cease, and to dismiss the subordinate officers and servants; and upon vacancies of harbour-masters, or any other officer or servant, the Elder Brethren to report to the Lords of the Council whether, in their opinion, the demands of the service require that they should or should not be filled up; and no new appointments of harbour-masters by the Lord Mayor to be valid, unless the Lords of the Council shall have authorised the filling-up of the vacancy.

(E). Powers of the Act of 54 Geo. 3, c. 159, as relate to the appointment of a King's harbour-master, to be amended and enlarged, so far as relates to the appointment of a King's harbour-master for the port of London, the qualifications of such King's harbour-master to be first approved of by the Elder Brethren of the Trinity House, and to be the superintending harbour-master of the harbour service in the port of London; the other harbour-masters to be subordinate, and to be subject to his orders and directions. Act, 54 Geo. 3, c. 159.

(F). Power to be given to the Lords of the Treasury to regulate the salaries, wages, &c. of the harbour-masters, officers and servants, employed upon the harbour service, and of granting pensions, controlling and approving of the expense of the harbour establishment and disbursements; half of the salary of the King's harbour-master to be paid by the Lords of the Admiralty, and the other moiety out of the port dues; and all subordinate appointments to be subject to the approval of the Lords of the Treasury.

(G). A passage of not less than 300 feet in width to be preserved on the river Thames, below London Bridge, for the transit of shipping; and not more than 18 ships or vessels to be permitted to lie in a tier, the outermost ship of which to have a clear side, and to exhibit in the main shrouds next the stream, a piece of white canvass, three feet square, as a notice to other vessels not to make fast outside.

(H). That no more than 163 colliers, whether laden or light, be permitted to be moored in the stream above the Regent's Canal entrance; and that a power be vested in the Lords of the Privy Council to diminish the number thereof by order in council, from and after the 1st day of January, 1838, or so soon after as any collier docks shall have been constructed, and be ready for the reception of colliers; and with a power also to prohibit the discharge of any colliers in the stream above Deptford, the proprietors of such collier dock or docks to be restricted from charging any more for the unloading of coals than shall be usually paid at the time for discharging coals in the stream; and to be compelled, if so required, to discharge a quantity of not less than 100 tons of coals per day. The tonnage dues upon the ship not to exceed 3 *d.* per ton register, and 1 *d.* per ton per week rent, after the expiration of 14 days. Colliers not to be prevented from discharging alongside of wharfs, or in the stream below Deptford, in such parts of the river as may be permitted.

(I). That a power be given to appropriate the annual surplus of the port dues to the removal of shoals and mud-banks, between Blackwall and London Bridge; such monies to be placed under the management of the Elder Brethren of the Trinity corporation, who are to lay an account annually before Parliament within 14 days after the meeting thereof, setting forth in detail the amount received and particular appropriation thereof, and the soundings of such shoals and banks taken the month preceding the presentation of the annual account; and if the corporation of London should be induced to contribute annually to this important purpose, the application of such contribution may be provided for in the same clause. Shoals and mud-banks.

(K). That every vessel propelled by steam, navigating the river Thames, shall, between Greenwich and London Bridge, throttle the valve of the steam-pipe so as to diminish, as near as may be, according to experiment to be made, the velocity of the vessel to one-half her speed, the machinery by which the same is to be determined, to be called an Indicator, as described in the evidence, and according to the plan marked A, to be fixed on deck, subject to the several regulations suggested: but the regulations as to throttling the valve, or speed, not to affect steam-vessels whilst in the act of towing ships. Steam.

(L). That no vessel propelled by steam shall, between Cuckold's Point and Queen Stairs, Rotherhithe, be permitted to receive on board or disembark any passengers; and the paddle-wheels of any such vessel navigating the river Thames or Medway, to be stopped whilst receiving on board or disembarking any passenger.

(M). That no such steam-vessel shall be allowed to carry more than three passengers for every ton burthen. Children under the age of 12 months not to be included; and two children, each being under 14 years of age, but above 7 years, or three children, each being under 7 years of age, to be accounted as one passenger.

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(N). That no such steam-vessel, whilst navigating the river Thames, shall have less than one person (being either the captain, pilot or mate) stationed on one of the paddle-boxes, and one other person stationed forward, over and above the requisite person or persons at the tiller-wheel of the helm; and the name of the vessel to be painted in large letters outside, on each of the paddle-boxes.

(O). A brilliant white light to be exhibited after dark, at the mast-head; and one light, coloured red, on each of the paddle-boxes.

(P). That steam-vessels shall give way whenever practicable to sailing vessels; and whenever steam-vessels approach each other stem on, the helm of each to be put a starboard; to have always one boat in tow, but not more than two, and the second boat to be that only of the pilot or person in charge of the vessel.

Wherries, boats and craft, Act 7 & 8 G. 4, c. 65.

That no wherry or boat for carrying passengers below bridge be licensed by the Watermen's Company or Elder Brethren of the Trinity House, of less dimensions than as follows: [here insert the dimensions that may be determined upon by the Select Committee] and such wherries not to carry more than six passengers, with 56 lbs. of luggage each when required.

The various other remedial regulations suggested, which partake more of detail and improvement in practice than alteration in principle, may be provided for under existing authorities; a recommendation by the Select Committee in their report of such of them as may be considered deserving attention, would have the effect of producing the desired remedies, and if in course of time this should be found ineffective, resort may afterwards be had to Parliament.

Martis, 17° die Maii, 1836.

MEMBERS PRESENT.

Mr. Poulett Thomson.	Mr. William Crawford.
Captain Alsager.	Mr. Angerstein.
Mr. Hutt.	Mr. Alderman Thompson.
Mr. Alderman Wood.	Mr. William Williams.
Mr. G. F. Young.	

MR. POULETT THOMSON, IN THE CHAIR.

Robert Peirce Cruden, Esq., called in; and Examined.

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4. *Chairman.*] WHAT is your business?—I follow none: I reside at the Terrace, at Gravesend.

5. Have you paid much attention to the port of London?—I have. I would crave the indulgence of the Committee for one moment, in order that I may be allowed to explain the situation in which I am engaged, in consequence of many disastrous occurrences in steam navigation. Towards the end of last year a meeting of persons on the part of certain steam-boat companies was held, at which we deemed it expedient to put ourselves forward to ask for regulations. There was an impression that the steam-boat proprietors and managers were reckless, and that many of the calamities that had befallen the public might have been avoided if more care had been taken by us; and we thought it due to ourselves, and due to the public, to take a foremost part in that, in order to show not only that we had no objection to regulations, but that we were extremely anxious they should be made. At the same time I beg to state to the Committee, that with respect to the regulations, we hope we shall find some protection for that important branch of shipping.

6. Who are you speaking for?—I am speaking for the steam-boat companies generally.

7. You are a steam-boat proprietor, are you?—I am the chairman of the Star Company which navigates between Gravesend and London.

8. How many boats have you?—We have five; and our establishment take more passengers than any afloat. I would state that there are obstructions to steam navigation; and that unless some means can be discovered for removing them, I am afraid that no regulations will be found very effective. Those obstructions chiefly, but not entirely, are met in the Pool, in consequence of the irregular state of it, arising, I feel myself on the part of my constituents bound to say, from a want of proper vigilance in the regulation of the vessels there. I would state that the colliers are a class of vessels not sufficiently regulated; I frequently see them lying in a way contrary to the bye-laws of the city, that have been enacted for the good regulation of the Pool. I have frequently seen a much greater number riding in tiers than are allowed by the bye-laws of the city. I believe that unless that is regulated, it will be quite in vain to talk about any measures

measures that could give the public a much better accommodation and more safety by steam-boat navigation. The colliers, when they are riding in tiers, are not only too numerous, but, I think, the position in which they are placed is not the most eligible. Having had the subject brought very much under my consideration of late, I have had the means of coming to some conclusion upon it. I have seen the plan proposed by the surveyor of the port of London, and with the authority of the corporation, and I have seen a plan proposed by Sir John Hall, who has devoted vast attention to the subject, and my opinion is, that if the system adopted by Sir John Hall in the latter of the plans were adopted, a vast deal more accommodation would be afforded, and a considerable and improved safety to the navigation of the Pool. I advert particularly to it, as affording accommodation for 163 ships, by the simple expedient of giving two more tiers. The city proposes nine tiers; Sir John Hall proposes 11; and I believe it would be practicable, in case of the adoption of the latter, to secure a free passage of 300 feet from Limehouse through the Lower Pool. But the obstruction does not exist only in the Lower Pool; although, unfortunately for the public, there has been no such champion for their interest in respect of the Upper Pool, as they have found in Sir John Hall, in the lower portion of the Pool; for, undoubtedly the coasters there, including the colliers, are not so well regulated as they might be, particularly abreast of the Tower. There are colliers, and I have seen frequently, when discharging their cargoes, there is scarcely a passage through. I was in attendance last Tuesday upon the Committee, and on my return I found there was a passage not exceeding 120 feet. The very day on which I had come here to tender my evidence, if called upon, there were two lighters coming down, and they were lashed together, head and stern; I suppose these coal-barges were from 45 to 50 feet in length, and they were drifting athwart the tide, and when so lashed they were in the centre of this passage; of course, we could find no possible mode of getting by, and of necessity we ran against them; fortunately, no harm was done. I think the colliers themselves do not present a greater obstruction to the navigation of the Pool than the coal-barges themselves, for the circumstance I have just mentioned is of very general occurrence in the river. You will see them also always drifting athwart the tide, and managed by one man only, and some of them are of 60 or 70 tons burthen. If they were managed by two persons instead of one, and were required to go straight, much less room would be occupied by them, and one of the greatest obstructions removed; and my opinion is, from the long observation I have made, that there will be no fit and proper access to the city of London for the commerce of the port, if some regulation is not provided in that respect.

9. By going straight?—Yes; I have no doubt I could get persons in every alehouse from Westminster Bridge down to Cuckold's Point, to sign a petition to say they could not go up and down the river unless they drifted athwart the tide; and unless a strong hand is put upon that it will prove an obstruction that cannot be removed. It is very often imputed to those who are engaged in steam-vessels that they do a vast deal of mischief, and there has been a particular clamour on behalf of the watermen of the river; but I think that the cause is the insufficiency of their own boats; and I believe if their boats were made what they ought to be, we should have very little or no complaint upon the subject. They are now so fragile and small, that I, for one, am of opinion I never can go into a London wherry without incurring manifest danger, and yet I see them sometimes loaded with four and even six persons; they are licensed to carry eight, but I very seldom observe so many as eight, except in the case of corn-porters; but I would submit to the Committee reasons why I hope they will entertain favourably the suggestion I take the liberty to make, that they ought never to carry more than six, even if the boats were improved. The first Act of Parliament by which the Watermen's Company were incorporated, was in the 2 & 3 Philip and Mary, c. 16; and a reference to sec. 7 will show that the length of wherries in the river at that time was precisely what it is now, namely, 22 feet 6 inches. There are two very interesting facts which will also be established by reference to that statute; they, it seems, were not allowed to carry more than five persons; I rather think not more than four, for the words of the statute are, that they shall be substantially and well able and sufficient to carry two persons on each side, tight, according to the old quantity, scantling, thickness of board, goodness, and good proportion heretofore had and used. Sir, the two facts stated there are, first, that the wherries then were not allowed to carry more than five, but I believe only

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four, because two on each side were to be provided for; and the other important fact is, that there was only one class of wherries. I submit at present it would be found extremely convenient if only one class of wherries were allowed, because there can be only one that is fittest for the purpose, and that being ascertained, should be used for all purposes: if that were adopted we should have very little complaint made by the watermen of any inconvenience sustained from steam-boats. There is another obstruction which steam-boats experience, which I do not know whether I may be permitted to advert to more particularly, but I believe it has been proposed that it should be enacted, that the velocity of steam-vessels should be checked when they approach deeply laden barges: now, I do not deprecate for a moment any measure that should afford any protection to deep loaded craft, but I hope it will be taken into account at the same time that they are most improperly and recklessly loaded in those vessels where they have a half deck, and where the deck's beams are curved, and where the outsides are considerably lower than the centre; I have seen the water washing over, judging as well as I could, being close to them, at least the breadth of two planks upon their decks; and I submit that it is not giving to the steam navigation a fair chance or a proper protection if vessels are permitted to be loaded in that reckless manner, and then to expect that steam navigation shall be impeded lest they may put such craft to inconvenience. I submit it would be very desirable for the safety of persons navigating those boats, and for the safety of the cargoes they may contain, that no working craft should be permitted to load so much, or to leave less than 15 inches free board. I have submitted that it is desirable that this free passage of 300 feet should be preserved, or else I think the steam navigation can scarcely be said to have fair play.

10. Do you think the passage of 300 feet would be sufficient?—I think it would, because I think it is necessary to take great care not to leave less room than sufficient for the vessels requiring to moor.

11. You do not think less than 300 feet would be sufficient?—No; I come to that conclusion, having had my attention drawn very much to it. Having seen the state of the Pool as I have gone through it, I am of opinion that not less than a passage of 50 fathoms is necessary for a free and commodious transit.

12. Was there not a recommendation some time ago by the Port Committee to reduce that width to 250 feet?—There has been much discussion upon that point, and the committee were induced to recommend in their report that it should be reduced to 250 feet.

13. That has not been carried into effect, has it?—No, it has not been confirmed.

14. Was it not passed?—I believe there was some very strong discussion in the Court of Common Council upon that subject, and I am sorry to say, while we have been looking anxiously to those proceedings, we have found that gentlemen from whom we should look for protection and accommodation somewhat pertinaciously resisting every attempt to improve the passage of the Thames.

15. In your opinion a passage of 300 feet in width is sufficient, is it?—It is sufficient, and it is not more than sufficient.

16. That is between the low-water mark and the centre?—I have spoken of the centre; but to accomplish that, I believe, from the calculation I have seen, which may be considered authentic, it does not admit of more than 18 ships in one tier; and I have seen 13 with their heads up, and I presume as many with their heads down.

17. For how many of those colliers is there accommodation given by the present system of mooring which is pursued?—I find there is no system observed; there is very frequently an excess of ships lying in the tiers; that is all we complain of.

18. Is it that there is not a good system laid down, or is it that, being laid down, it is not enforced?—I believe that more ships than 18 are laid in the tiers, and when that is the case, it does not admit of a passage of 300 feet.

19. To what number do the harbour-masters profess to limit the colliers?—It is laid down in the bye-laws of the city of London.

20. How many in all?—I am not quite prepared to answer that question; I should say, somewhere about 190 ships. I speak with difficulty upon that, but they are in the bye-laws of the city of London, which are printed.

21. By Sir John Hall's plan, of which you have spoken, only 163 would be admitted?—Just so; there was a discussion upon that question, and I believe the

trade

trade are quite satisfied with that number, and that differs only by six ships from the plan laid down by the city surveyor, who, as I have already stated, suggests a plan for 169, whereas Sir John Hall's is only 163.

22. Under the plan put in by the city surveyor, would the passage be narrowed?—The city plan is for the nine tiers to accommodate 169 ships, and that would not leave so much throughout as the 300 feet; but this plan, which I hold in my hand, will accommodate 163 ships, leaving the 300 feet uniformly.

23. I understand that the plan put in by the city surveyor would not leave the 300 feet which you consider indispensable?—Just so.

24. What would be the narrowest width which it would leave?—I think, in some situations, about 250 feet.

25. You prefer the plan put in by Sir John Hall to any other?—I do, because it affords all the accommodation that is desired, and provides for as many ships within six as that which is an objectionable plan.

26. Now, you spoke of the circumstance of giving further accommodation in width to the steam-boats in passing up and down the river, and you have spoken of the accidents which took place; in your opinion, do not some of those accidents arise from the great speed with which the steam-boats are in the habit of going?—I should say they go too fast at present, because they are under no prohibition. I have stated with reference to steam-boat navigation, that being the particular thing about which I have a duty to perform; but if the Committee will permit me, as I see the steam-boat proprietors with whom I am associated are extremely desirous that that should be stated, I will state the grounds upon which I think some very salutary regulations might be enforced. I hope I may be allowed to revert to one of the objects that I have more particularly spoken to, that is, to colliers; I say that if they were regulated, so that this passage of 300 feet should be left, we should have very little reason to complain, and that led me to speak of coal-barges, and the very inefficient manner in which they are now regulated. Since this subject has been so widely discussed, collier docks have been suggested as one of the remedies. I would only now wish to add, that I believe, on a former occasion, when collier docks were proposed to be established in the Isle of Dogs, two objections were raised; the first was against a compulsory clause, exposing that trade to the pressure of a very heavy expense, which they could not well endure; the other objection was, that docks situated in that part could not conveniently be reached in one tide, or at least craft could not return from that to the coal wharfs above bridge; but I believe it will be found that such a regulation as I have proposed would meet that objection. If they were managed by two persons instead of one, and were worked head foremost as they ought to be, they could be propelled at a greater rate, so as to reach from the collier docks as low as the Isle of Dogs or Limehouse very conveniently; and I speak of that as a necessary point, in consequence of the accommodation of the coal trade. Sir, with regard to the question of steam navigation, in the year 1831, I was examined before a Committee of the House of Commons upon the subject, and when the report was published, my attention was drawn to these several objects: it was objected that their starting together admitted too readily of the dangerous practice of racing; it was suggested that they should have night signals, that their speed in the Pool should be restrained, that they should be surveyed, and the number of passengers they carried should be restricted, and so on. But upon that I would apply myself at present, first of all, to the speed of vessels. Great difficulty is found in defining, not so much what the speed should be, but how it should be ascertained; it was proposed to do that by measuring the revolution of the wheel, but I believe, leaving that to more scientific men than myself, it will be found scarcely practicable, for the wheel may perform the same number of revolutions at different times, but produce a different velocity; the boat may be more deeply immersed in the water; she may be going with the tide or against it; and therefore, I believe, the only practicable mode of restraining their speed is, to do it in the way the speed of coaches is restrained, for I believe you will find a difficulty in obtaining a conviction if that line generally were taken.

27. How would you define the rate they were going at?—Before the magistrates, according to the circumstances as they should be proved. I would now submit that in some cases this has been very carefully discussed, and it has, I believe, been conceded in many parts, and under various circumstances, that if

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you do impede the speed of a vessel you throw her into danger, and extraordinary speed must occasionally be necessary to avert danger: that has at last been recognised, for it has been most candidly proposed that a magistrate shall have the power of mitigating or remitting the penalty when such a case occurs, and therefore I believe it will be in other cases just as well to leave the whole decision to the magistrate; at the same time, as a manager of steam-boats, I have no hesitation in saying they frequently go at too great a speed for general safety, and I shall rejoice at its being regulated. It is not for me to say more than I think there will be great difficulty in doing it according to the revolutions of wheels. If the Committee will permit me, I will advert to clause 12 of Mr. Alderman Wood's Bill, which proposes that it shall be in the discretion of justices not to convict any person of the offence of not restraining or reducing the speed or velocity of any such vessel as aforesaid, when it may appear that the speed could not be immediately regulated without danger or risk of committing damage, or if the speed was increased for a short time to avoid some imminent risk, and when there was no wilful neglect or omission to restrain or reduce the same. I hope that clause will be found to give the public sufficient protection, and I believe the public will be sufficiently protected if these vessels are restrained, as coaches are, from unnecessary and unreasonable speed: with regard to the number of passengers which steam-boats shall carry, that is provided for in the Bill. I have no objection to offer to that, except that this Bill was framed, I believe, before the new mode of admeasuring vessels was in force, and therefore I trust it will have application to the measuring vessels before the 1st of January only.

28. Have you any objection to an inspector being on board?—I am afraid I can hardly use language strong enough to convey my notion upon it; I think it would be monstrous to put any individual whatever on board who should be permitted to take the command out of the hands of the master under any circumstances; if the commander act improperly he should be made amenable for his conduct, but it would be monstrous, because dangerous, to put any one on board to interfere with him there.

29. Mr. Alderman *Wood.*] Supposing a person were put on board to ascertain the speed at per mile, if the Act were carried, so that it should be only so many miles within the hour, that person being put on board in order to be a witness if there were any racing, would there be any objection to that?—Yes, very great objection; for he would be in the position on board of a very obnoxious character; he would stand there as a common informer; and some passenger had better go to the police-office and give his evidence. I believe it is intended to call upon steam-boat proprietors to be at the expense of maintaining an immense host of inspectors.

30. *Chairman.*] Would it be satisfactory, in your opinion, to have the distance clearly defined upon the river, and persons appointed to ascertain that the boats did not pass that distance except within a limited time?—We could object to no means to ascertain whether a proper regulation is duly observed.

31. Mr. Alderman *Thompson.*] Have you ever learnt a mode of ascertaining it of this description; namely, by means of opening a valve upon the steam-pipe which connects the boiler with the steam cylinder; and upon the arrival of each steam-boat at any given point, I will say at the East India Docks, for instance, the master should be compelled to turn this valve, so as to diminish the quantity of steam which passes from the boiler into the steam cylinder, and thereby diminishes the power of the engine, say one-half or two-thirds, or such other quantity of power as may be deemed essential for regulating the speed through the Pool to her destination, at such a rate as would in a great degree avoid that danger which the present system produces?—I believe it would be very practicable, and very easy, to provide an indicator that would show the speed; that may be done by the revolution of the wheels; but I believe it would not, under all circumstances, be found that the same speed would be obtained by the same number of revolutions of the wheels. I believe that that end would be obtained by the experience of the masters, for they are not scientific men, but they have their regulations of quarter-speed, let her go, easy, so that they can regulate the speed, but without doing it with precision, though close enough to answer all practical purposes; and there are now mile-posts put up from Greenwich, so that any man can find it very easy to ascertain at what rate they are going; and I believe that will

will be found to answer the purpose, if the speed is watched, and boats found to go in less time than he is allowed to perform the average rate: and the master would be amenable to a regulation that would be adopted to prevent that.

32. Mr. *G. F. Young.*] Would an equal pressure of steam on each inch of the boiler at all tend to produce equal velocity in the vessel?—Certainly not.

33. *Chairman.*] Would the variation be very great?—I should think it would be considerable, from the circumstance I have already stated, that a boat may be very deep, and she may draw a greater draught of water.

34. Your steam-boats are small, are they not?—Not so large as sea-boats.

35. What is the tonnage?—Near 300 tons.

36. What force of power?—A pair of sixties; but we have smaller boats.

37. You have seen the sea-boats constantly going in the river?—Yes.

38. Does not a large steam-boat necessarily, when passing through a channel of 300 feet, or so narrow a channel, necessarily, even when going at a moderate rate, say three or four miles an hour, produce very great undulation?—That depends very much upon the structure of the boat; there are some that do occasion a vast turbulence in the water; there are others that go so easily as to occasion very little undulation, though at a very great speed; but those sea-going vessels are generally (for the purpose of being more fit for carrying cargoes) fuller built, and therefore more likely to create undulation.

39. So, in fact, though the speed may be very moderate indeed, there must occasionally, in certain steam-boats, be produced a very great undulation; an undulation which would render it dangerous to be in a small boat?—I cannot say to that extent: I cannot say there is now any steam-boat I have in my recollection where that would be the case.

40. Are the Committee to understand that the remedy which you would suggest, or rather the regulation which you would suggest for steam-boats, consists not in any adaptation of an indicator as to the speed of the steam-boat itself, but leaving it in the situation in which coaches are, to informers, when the steam-boat may be observed to be going, according to the observation of individuals, at an unusual speed?—I believe that would be the best course in every case, because they would be amenable to the penalty to be inflicted.

41. What security would the public have?—The application of the law.

42. Yet in the case of coaches and carriages, is it not within your knowledge that there are constant disputes as to the rate of driving?—Certainly.

43. Would not that be much more likely to arise in the case of steam-boats?—Yes; but I conceive it would be greater if left to the operation of an indicator, because the velocity of the boat under different circumstances is not the same.

44. And yet you object to an inspector being on board?—Certainly, to interfere with the captain, and I also object that they should be at the charge of the establishment; they should be at the charge of those who think them a security to the safety of the public, because it would be to establish a large system of patronage at the expense of private proprietors; it would me monstrous that the expense of a hand on board a steam-boat should be paid by the proprietors for that purpose.

45. Mr. Alderman *Wood.*] What do you think that expense would be?—About 100 *l.* a year each for 100 inspectors.

46. Mr. *G. F. Young.*] You would not think it just that a proprietor who never infringed the law, or intended to do it, should pay for a man to give information?—Certainly.

47. Mr. *Alsager.*] Do you not think it would operate as a check upon captains of vessels?—No; perhaps I proceed from a notion of the utmost confidence in the skill and care of these men; I believe that nothing can induce them to be more careful than they are, for they are afraid of incurring any damage to the vessel; their own interest is involved in it, and although it has been very much imputed to them that they are reckless, yet I believe they are extremely careful.

48. Mr. *G. F. Young.*] Yet you admit their vessels are sometimes navigated at too great a speed?—Yes, I think they are; but I am quite sure those men think that is not an unsafe rate.

49. Mr. Alderman *Wood.*] What do you say to those very informations that have arisen and actions commenced against so many of the steamers, where loss of life and property has occurred?—I believe that in very many of those cases the juries have not gone along with the public prejudices upon that subject. I think there have been some very important charges by the judges on the subject.

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50. Supposing the Legislature to resolve that the speed shall be restricted, what is the specific plan that you would suggest to the Committee as most likely to give effect to that intention in the least burthensome way to the proprietors of vessels?—I do not know any more practical mode than that suggested, that they should be restrained from any unreasonable speed, and that should be made subject to the decision of the magistrates.

51. Mr. *Alsager.*] Suppose the captain should violate the regulation, what check would you place upon him so as to bring him to justice?—I should make it subject to an information before the magistrate.

52. *Chairman.*] Who would give the magistrate the information?—Anybody; I only object to its being a charge upon the proprietors.

53. Do you think that public officers appointed for that purpose and patrolling the river as the Thames police do, would be beneficial?—We can make no objection whatever to that; I object only to these persons being put into the vessel with authority to interfere with the master who has the charge of her; I would suggest, with regard to the safety of passengers, that we find constantly that they will go upon the paddle boxes, and the masters find it sometimes dangerous, and it increases the difficulty of the management. The next point upon which I would wish to make an observation, is, that it would be found extremely useful, although we never suffer our boats to go without lights, to compel them to use a light invariably.

54. Mr. *Alsager.*] Would you recommend a light at the bow of the vessel as well as at the mast-head?—I should think the most eligible mode would be to have such a light as may be known to belong to steam-vessels; there should be three placed triangularly, either at the cat-head or mast-head: there is a very clever man, Mr. Grant Preston, No. 108, Minories, who produced some lamps of variegated colours, and I think the usefulness of them would consist in marking emphatically by them that a steam-boat is approaching.

55. Does that not have reference to a mode by which they are painted, so as clearly to designate each particular vessel?—That might be very well brought about too; that would merge in another point, which I would ask leave to submit to the Committee. A Mr. Higgins was examined before a Committee of the House of Commons, in the year 1831, who gave a plan for providing triangular lights; his evidence will be found in the Report of the Committee, in 1831. Although there are some rules established between the masters of steam-boats, there is no general rule, much less is there one that can be enforced by law; but I believe it would be very salutary if one uniform rule were enforced as to vessels passing when under weigh coming head on; if both were required to put their helm to starboard or both to port, it would occasionally prevent collision; there is another situation, one may be going against the tide and the other with the tide; I would suggest that the boat having the tide in her favour should give way to the boat going against the tide, but that in crossing the stream, when they pass, they should observe the same rule, putting their helms both a-starboard or both a port.

56. *Chairman.*] Have you ever been concerned, in the company in which you are now engaged, in defending any actions for accidents caused by your boats?—No; but I have been concerned in an action against the Thames Police magistrates; they convicted our men under the Watermen's Act; we demurred to that conviction, and gave notice of an action for the trespass, but the magistrates put it to us whether we meant it personally or meant it as a public point; of course, we never meant anything more than to set the question at rest as to the public, and we therefore consented to a case, that it might be discussed without reference to the magistrates personally; but before the case was prepared, efforts were made to alter the Watermen's Act bye-laws, and a caveat was entered against that, when it was argued before the judges, and they would not confirm the bye-laws under the Watermen's Act, because the court felt they had no jurisdiction over that class of vessels.

57. Was it a conviction for an accident?—Yes.

58. What was the accident; was a boat swamped?—It was some trifling accident to a boat. Whenever these things do occur, we feel it our duty not to litigate the question, but to give the parties compensation.

59. Did the magistrates convict you summarily?—Yes, under the Watermen's Act.

60. You appealed against that conviction, and the proceedings did not go on, because

because it was considered you were not amenable under the Watermen's Act?—Yes; but there were two appeals at the quarter sessions, and in one case they decided they had jurisdiction, and in another they had not; and therefore we were willing to let it come before the judges, in order that it might be solemnly argued.

61. You have spoken of the insufficiency of the boats belonging to the watermen; do you consider the class of boats used above bridge is dangerous in the present state of the Pool and with the number of steam-boats that are constantly down the river?—I believe the wherries used above bridge are not so large as those below bridge, because there are many inducements above bridge to build boats as light as possible, and very soon after using them the owners sell them, and the watermen buy them, which introduces a very small class of boats from above bridge.

62. Is it not the practice to go in a boat taken from above bridge down to Greenwich and to Blackwall?—No doubt of it.

63. You think that class of boats now used for that purpose decidedly dangerous, do you?—I think so.

64. That danger arises from the steam boats, does it not?—I lament that I have not my papers with me, which would enable me to give an answer to that question. If I had had the papers, I could have read the report of the harbour-master, in which Captain Fisher said that accidents would happen if there were no steam-boats in the river at all.

65. Has the number of accidents increased?—I believe that some of those cases would be found to be from the conduct of the men, and not from the fault of the steam-boats; for I have seen them act in a most disgraceful manner, by putting themselves in the way of steam-boats.

66. Has not the number of accidents increased since steam-boat navigation has increased on the river?—I think it is possible they may.

67. Have the accidents principally occurred at night?—I cannot say; our vessels never moor by night.

68. The steam-boats come in at night?—Some boats do.

69. Have those accidents principally occurred at night?—I cannot answer the question; there is, of course, greater risk of accidents at night.

70. You would suggest, therefore, the propriety of preventing the employment of boats of the present description of wherries?—Undoubtedly I would; and I entreat the Committee to allow me to add, that I think it would be an extremely beneficial thing to the public if only one class of boats were allowed; I mean that they should not be licensed to carry smaller numbers in smaller boats, but that all the boats should be of the same size. Originally, only one class of boats was allowed. I never knew of more than one class of boats being allowed till the last Watermen's Act.

71. Mr. Alderman *Wood*.] How are these watermen to supply themselves with new boats of the construction to which you allude?—I think the first object is the security and the safety of the public. I should be happy if I could devise any mode by which these men could be relieved from the expense of producing new boats. I have adverted to the coal trade in the port as to the existing trade, and I beg to state that a great inconvenience results from the too common practice of vessels discharging their cargoes in the stream. If, at any early time, a collier-dock should be established, I think if that accommodation should be afforded to the coal trade, it will be reasonable to require from them that, if they chose to avail themselves of time and place to load and unload in the stream, they should be subject to a toll equal to that which they would have to pay for the accommodation of a dock, and I think that would afford one resource for the compensation to these watermen. I would submit also that the watermen have funded property; I think some relief might be obtained from that; I think, if their fares were increased 25 per cent., the public would not object to it; for, at present, the fares are regulated upon this scale; they have 3*d*. from bridge to bridge; if they had 4*d*., that would give an increase of 25 per cent. I think if these boats were to be restricted to carry no more than six persons, that would be a source of increased income to them. I have heard it suggested that the steam-boats are the cause of the necessity of introducing a better class of wherries, and therefore they should bear the burthen of producing them. Now, speaking with reference to the company with which I am connected, I should say I am sure they would do everything that is liberal; but, at present, the steam-boats conveying passengers between Gravesend

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and London contribute 3,500*l.* a year, or thereabouts, to the watermen of Gravesend, as a compensation for their loss of work by the erection of a pier there. That is a circumstance I may mention only just to show that that would be a ground of difficulty in contributing by the same company in procuring boats aloft.

72. Having found out a fund for these men to build larger boats, will it not require two persons to manage those larger boats?—No.

73. Do you say that one man will be able to manage a boat built upon this larger construction?—Yes; I have seen a model of an improved boat which I believe one man will be perfectly able to manage.

74. *Chairman.*] And you think the public would be induced to give 25 per cent. for being rowed much slower, but with more security?—I think, if a man wants a wherry to go from one bridge to another, he would rather give 4*d.* for that security than to be conveyed for 3*d.* without that security.

75. Mr. Alderman *Wood.*] But much slower?—No, because they would go as fast.

76. Mr. *Williams.*] What additional gunwale would you recommend for safety from the swell of a steam-boat?—If a wherry now has her full complement, she leaves about four inches free board; if the model I spoke of were adopted, and she is allowed to carry eight passengers, there would be about 12 inches free board, but if she carry but six there would be about 14 inches free board, and this will be accomplished by a small wash-streak from the after row-lock to the stern.

77. Mr. *G. F. Young.*] Does the liability of a boat being swamped depend much upon the tendency to oscillate upon the wave and the actual height of a vessel's side above the water?—Yes.

78. Mr. *Williams.*] Do you not consider the danger will be increased if you put a man into a heavier boat?—I am always supposing the boat I speak of will be as eligible for all purposes as the present boats.

79. Mr. *G. F. Young.*] Do you consider it will be possible to construct a boat that shall be easily managed by one man, and have at the same time as much speed as the public will require, combined with safety and free from the liability to oversetting which the present boats are remarkable for?—I believe so, from the model I have seen.

80. Do you know whether any considerable number of new boats are annually licensed to watermen?—I believe there is an increase of them, but I do not know the fact.

81. If a regulation were made by which such new boats only should be licensed as were built upon an improved construction, should we not have a gradual substitution of a proper description of boats, without any burthen upon the parties themselves?—That improvement might gradually be obtained undoubtedly by those means.

82. Mr. *Williams.*] How long a time do you consider it would take before new boats would come into complete operation?—A boat will last many years, and until the boat is worn out the owner would not substitute another unless he was required.

83. Mr. *G. F. Young.*] Would they not find it to their interest to substitute approved boats, if they were found to possess the qualities you have described to be possible to be obtained?—I should think so; I should think there would be a disposition on the part of the public to employ the best boats.

84. *Chairman.*] You stated that in your opinion considerable difficulty arises in the regulation of the port, from the circumstance of coal-barges going down the river sideways; has that been a complaint of long standing?—It is an universal practice, and has been for a long time; it is the most easy for the men.

85. How many men are there on board?—Only one, generally speaking; there is a bye-law that requires there shall not be less than one in each boat.

86. If you were to alter that, it would imply the necessity of employing two men to do the work of one?—Which I believe would not at all increase the price of the article to the consumer, but it might diminish the profit of the lightermen.

87. The lightermen would be obliged to employ two men to do the work which is now done by one?—To do the work well by two men, which is now done ill by one.

88. You mean, as far as the public is interested, by the prevention of accidents?—Yes.

89. The boats would not go quicker to their destination, would they?—Yes.

90. It

90. It is an advantage going across the stream, is it not?—They indulge their idleness by it.

91. Can one man keep the boat straight?—Yes.

92. Then, if one man can keep the boat straight, why is it necessary to employ two?—To meet the objection that there would be speed lost.

93. Have you ever seen the experiment tried of one man in a coal-barge trying to keep her straight?—I saw some few this very morning, to my surprise, quite straight, and they appeared to me to go very advantageously.

94. It is quite possible, if the man were active, to keep the boat straight?—I have no doubt of it.

95. How would you propose to enforce that regulation, provided it were decided that these boats should be kept straight?—Either by a legislative enactment or giving authority for a bye-law to be made that they should do so.

96. A bye-law of the city would be sufficient?—Just so.

97. The experiment might be tried by the city passing a bye-law with the regulation that the boats should be kept straight or else a penalty enforced?—The object is so extremely important, that I should be sorry to see it left to that, for I think the city would be assailed by the parties who indulge in that habit, and they would find it difficult to enforce such a regulation.

98. You state it is perfectly possible for one man being on board the barge to keep it straight?—Certainly.

99. What interest would the owners of barges have in protesting against that regulation?—There would be such a clamour among the men, that they would find themselves compelled almost to resist it.

100. Mr. *G. F. Young.*] Will not a vessel, when laid across the tide, be propelled by the influence of the tide upon her much faster than she will when placed in the direction of it?—The greater the surface presented to the stream the more she will be propelled.

101. Do they not lay their vessels in that manner in order that the tide may produce the greatest effect upon them?—I believe their object is to spare their own labour more than anything else.

102. They lay them there to be drifted up just with the rapidity of the stream itself, without exercising any labour to propel them forward?—Just so.

103. And you would advise, instead of the present practice, that barges should be pulled by the labour of men the same as boats are?—Just so; but, at any rate, they should go head-foremost, and if they complain of the loss of speed, they should employ two men.

104. Mr. *Alsager.*] You do not mean to say, when a boat is across the tide, that she will not drift faster than if she were endways?—I should think she may.

105. She presents a different surface to the tide; then of course, for their own benefit and advantage, they put the boat across the tide?—Yes; I certainly think she would drift faster across the stream.

106. Mr. *G. F. Young.*] Are you sufficiently acquainted with the subject to give the Committee any information upon whether the number of colliers could be advantageously increased by extending them lower down the river than the point at which they are at present stopped?—I should think the number of colliers could be increased in Limehouse Reach.

107. Mr. *Williams.*] Are you aware whether the working of barges is now under the control of the Watermen's Company?—They are subject to the watermen's rules.

108. The barges as well as the wherries?—Yes, and subject to the regulation of the bye-laws of the city of London.

109. Are you aware if the persons who work the barges are required to be freemen of the city of London?—They are freemen of the Watermen's Company.

110. Mr. *Angerstein.*] It would be exceedingly difficult to define what would constitute a barge being straight, would it not?—The line of the stream would define it; if the stream is going west, then let the boat's head go west.

111. *Chairman.*] Are the Committee to understand that your objections to the present state of the Pool are, that there is a want of proper diligence in the regulation of the colliers?—Yes.

112. That you object to the mode in which the coasters lie in the Upper Pool, and that there are not sufficient regulations?—Yes.

113. That you consider the present mode by means of which the coal-barges navigate, as an evil which requires remedy?—A very great evil.

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114. And you object to the present wherries, as insufficient for the purpose and dangerous?—Just so.

115. The remedies which you propose are a better regulation of the tiers of colliers in the Pool?—Yes; so that no more than 18 shall be permitted in each.

116. According to the plan submitted by Sir John Hall?—Yes.

117. You wish the coasters lying in the Upper Pool to be more regulated than they are at present?—Yes.

118. You also wish the coal-barges to go straight?—Yes.

119. And you wish a different class of boats to be adopted?—Yes.

120. And you admit the steamers go too fast, and you wish their speed to be regulated, although you consider it had better be regulated by informations than by any attempt at a regulator on board?—Just so.

121. Mr. *Alsager*.] Would you recommend the name of the steam-boat shoul be painted on the stern or on the head boards?—I think it would facilitate the detection of parties; but the names are generally painted on their sterns or paddle-boxes.

122. *Chairman*.] Have you any other observation to make to the Committee?—Yes: in consequence of a practice in the coal trade, which is very well understood by the single word "he vend," we find there is almost always a considerable number of colliers waiting below to take their turns in the Pool. Now, that is a practice, not of recent establishment, for it has been instituted more than 100 years; but it seems now to require some correction, for they lay in tiers down below Blackwall, in Bugsby's Hole, and in Woolwich Reach; and I have seen this year, for the first time in my life, two colliers riding together, as in a tier, at Gravesend, and I never saw it before this year. Now, that is a thing that calls for some other mode of superintendence than does at present exist. I would submit, with great deference, that it would be found very eligible, if the powers of an Act passed in the 54th year of his late Majesty King George the Third, authorising the Admiralty to appoint a King's harbour-master for certain and restricted purposes, were carried out to give him a jurisdiction from London Bridge to the Nore. I find in the year 1827 the Admiralty issued some regulation that had reference only to Deptford, Woolwich and Greenhithe; because at those stations His Majesty's ships occasionally rode there; but I believe that if an officer should be appointed by the Admiralty, with an extended authority, he might do much good in regulating the shipping entering and departing from the River Thames. They anchor in the stream, and the stations which they occupy become an objectionable obstruction to the navigation.

123. Mr. *Alsager*.] Do they reach below Greenhithe?—No; the regulations extend as far as Greenhithe only.

124. *Chairman*.] Is it not the duty of the city to regulate that?—I apprehend not.

125. Does not the harbour-master's jurisdiction go as far as that?—I believe his duties are confined at present to the extent of Bugsby's Hole, just below Blackwall.

126. Does it not extend to the spot to which you allude?—I have never seen any city officer regulating the navigation below Blackwall; I am aware, of course, of their authority over ships, when moored above; I have not seen it exercised when the vessels are afloat below Blackwall; I should be extremely sorry to see that authority of the city abridged, for I have met in the Navigation Committee with very intelligent gentlemen, and who, above all, I am bound to say, are always open to access.

127. Why do you wish a Government officer?—Because I think the city wants support; in the late discussion about the state of the Pool, I have been sorry to observe that the gentlemen in the harbour service have impeded inquiry and resisted improvement, and I believe the committee are, and they are naturally so perhaps, so much more inclined to receive their impressions from the evidence of these gentlemen than from the evidence of parties who have been aggrieved; the harbour-masters appear to me very much to have resisted inquiry and improvement.

128. Are the harbour-masters not under the control of the Trinity House to a certain extent?—In some measure they are; I understand there is an appeal to the Trinity House, and that has been applied in a salutary manner.

Joseph Somes, Esq., called in; and Examined.

129. *Chairman.*] YOU are a ship-owner, are you not?—I am.

130. You are practically acquainted with the port of London?—I am.

131. Will you state to the Committee what objection you have to make to the present condition of that port?—In the first place, I consider the colliers a very great nuisance to the port of London, from the extent of trade we have going on.

132. You mean the colliers lying in tiers?—Not only that, but also lying above Greenwich and as low down as Blackwall, principally in the Pool and Greenwich Reach, and below Blackwall.

133. Do you find any difficulty in taking your vessels up in consequence?—I consider very great, both up and down.

134. Has that difficulty increased of late years?—It has.

135. Does the difficulty arise from accidents that have occurred, or from the delay as to time?—I think the accidents occur from the blockaded state of the river, and from the immense number of colliers that are now there, to what were there in former times.

136. Does it occasion delay?—Yes, it does; I have had ships frequently detained for two or three days.

137. Does your remark apply to below Blackwall as well as the Pool?—I mean as low down as Blackwall, chiefly.

138. You say the difficulty has increased of late; has that been in consequence of there being a greater number of colliers now than formerly?—I consider it is from that.

139. Was the passage formerly wider than it is at present?—It was not wider than I have seen it within the last week or ten days, but generally it is not so wide.

140. What was the greatest width it used to be formerly?—From 300 to 400 feet, and it ought not to be less for the purpose of navigation now.

141. What is it now?—Sometimes not above 150 feet, which is very dangerous indeed.

142. Is there not a regulation by which a clear passage of 300 feet is ordered to be kept?—There is; and I think a 300 feet passage very fair, but it is quite little enough.

143. Is that regulation not enforced?—I should think not, from what I see of the river.

144. Your observation leads you to say that 300 feet would be sufficient, if it were enforced, but that it is not enforced?—It is not enforced, I can say from my own knowledge, because I have an opportunity of seeing it five days in the week.

145. Have you ever made any complaint to the proper authorities of its not being enforced?—I have not.

146. Surely, if it is a serious grievance, there is ground for complaint?—I scarcely know who to complain to. I never made any official complaint.

147. Are not the city of London the proper parties to complain to?—I should think they were.

148. Have you known of complaints being made, and being unattended to?—I have heard of complaints being made, but whether they were unattended to, it is not in my power to say.

149. Has not the Trinity House the power of supervising, and seeing that the regulations are attended to?—I am not aware of it; for I should have thought that if it had been under the power of the Trinity House, we should have been under better regulation.

150. You have seen the evil, but have never attempted to correct it?—I have seen the evil, but I have not felt it much myself, my ships generally going into the lower docks.

151. Mr. *G. F. Young.*] Is it not a matter specially under the regulation of the harbour-masters?—I understand so.

152. The harbour-masters are appointed by the Port of London Committee, are they not?—Yes.

153. Do you know also that there is an appeal from the Port of London Committee to the Trinity House?—I do not.

154. Mr. *Hutt.*] Are the colliers the only obstruction?—I consider them the principal one.

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155. *Chairman.*] Is it your opinion that a change might be made in the present position of the colliers, by which this inconvenience might be remedied?—Yes; if they were to moor them in tiers, I think that would remedy it.

156. You think they could be removed lower down, do you?—I think they could; that is, a certain limited number could.

157. Will you state to what points?—I should think from the Duke shore to to near the lower entrance of the London Docks, you might stow about 160 on the south side Rotherhithe.

158. In your opinion, the inconvenience of which you now complain would thereby be removed?—It would, in a measure.

159. Would not that delay the arrival of the coals when coming up the river in barges to the different wharfs above bridge?—I conceive not.

160. Could they come up from that place in a tide?—Unquestionably they could.

161. Mr. *G. F. Young.*] Might they not be advantageously laid at Deptford, at that mooring which used, during the war, to be occupied by transports?—I consider that off Deptford there would be no impediment thrown in the way by the Government-yard or Victualling-office, if they were to moor there.

162. Are you aware of the depth of water now existing at that part of the river, as compared with what it used to be during the war?—I am.

163. What is it?—I should think the depth of the water at many places opposite the Victualling House from the Red House downwards, is not more, in low spring tides, than 12 feet, and we used to have 18 or 19.

164. To what cause do you attribute that diminution in the depth of the water at the particular places to which you have referred?—Because the ships are prohibited lying there; and the rush of water will of course deepen the river when ships are lying in slack water.

165. In the event of that place being required for the fitting of transports, as was the case during the last war, would it not be indispensable that considerable expense should be incurred to adapt it for such an application?—You could not lay the ships without taking away some thousand tons of ballast; it is impossible.

166. Then, if colliers were permitted to be laid there, would the natural operation of the tide deepen the water and thereby benefit the Government in the future application of that space?—There can be no question of it; if you put a collier there now of 12 feet, it would every day be getting deeper and deeper, till it came down to 18 or 19 feet.

167. Could barges be navigated from that point up to the present coal-wharfs at the upper part of the river in one tide?—Unless it blew a very heavy gale of wind; otherwise they could not.

168. It would not, in your opinion, be too low down the river to allow of their getting there in one tide?—It would take a greater number of barges, because they would have to start at low water instead of the half-tide, as they could at the upper part of the Pool.

169. Are you aware of any practical inconvenience that would result either to the Government premises or to the public from such an occupation of that part of the river?—I am not aware of any in the slightest degree.

170. *Chairman.*] Have you had reason to complain of obstruction in the river below bridge arising from an accumulation of mud in the river, and banks and sand?—I am not quite prepared to answer a question of that kind, except that one or two shoals that I know have grown up of late; it is only the Limekiln-dock shoal, and the next is Whiting's shoal, and I think there is not above nine or ten feet in low spring-tides there.

171. Are you aware whether any application has been made to the Trinity House to remove those obstructions?—I am not.

172. Do you happen to know whether those obstructions are accumulations of stuff fit for ballast?—It would make very fine ballast; it is as hard as possible.

173. The Trinity House would be disposed, of course, to remove that as a means of obtaining ballast?—I suppose so.

174. You are not aware of any other objection arising from matter which would not do for ballast?—Yes, there is the mudbank at Cuckold's Point at Limehouse Reach.

175. You do not know of any complaint that has been made of the Trinity House not removing matter which was an obstruction but at the same time was not fit for ballast?—No.

176. Mr. *G. F Young.*] Is it not the practice of the Trinity ballast lighters to take up any material from the bed of the river, except such as is applicable for ballast for ships?—I fancy their orders are not to take anything but what is fit for ballast.

177. *Chairman.*] Your objection to the navigation is from the accumulation of shoals that may take place, which the Trinity Corporation do not think it their duty to remove?—It is.

178. Is there any other observation you would wish to make to the Committee?—Yes: I think that the colliers, lying as they do now, on the north side of the river, is a great obstruction, which might be removed, in a great measure, by laying moorings down. There is another great obstruction to the navigation of the river, which is the barges. I frequently see steam-boats going up and down. There is a great obstruction, not only to the steam-boats, but the ships passing up and down on the top of the tide, from the barges not being sufficiently manned, and driving athwart the tide. I am of opinion that barges of 35 tons should have a man and a boy.

179. Mr. *G. F. Young.*] Are such barges generally pulled up by the labour of men, or permitted to drift up by the action of the stream alone?—The industrious men pull them up, but the lazy ones allow them to drift.

180. Mr. *Hutt.*] It is an additional obstruction when the barges drift up, is it not?—Yes; because they take up considerably more room; when they have tide-way upon their barge they are more easily got out of the way.

181. Mr. *G. F. Young.*] A barge when drifting is laid across the stream, as the most advantageous position?—Yes; particularly when it is blowing; she drives up faster.

182. Do they not lay them across the stream in order that the tide may have the greater effect upon them?—Yes.

183. Have you any suggestion to offer to the Committee with regard to the mode of management of the port?—No, I am not prepared to recommend any thing.

184. Mr. *Hutt.*] The number of colliers, you said, was rather increased of late years?—No doubt of it.

185. Of course there is every probability that they will continue to be increased?—According to the monopoly which is now existing of selling only 20 ships each market day, and of discharging 40 to 50 tons a day, when they could easily discharge 150 to 160, when that is the case of course there will be a very great increase; I certainly consider the colliers as a public nuisance in the river at the present time.

186. Mr. *Angerstein.*] Would it improve the navigation of the Pool, if the collier craft were drawn up by the power of steam?—Yes; but they would have so many steam boats then, that the remedy would be worse than the disease. If the colliers could be removed from the Upper Pool, there would be no danger to be apprehended from the steamers coming right up to London Bridge.

187. Mr. *Crawford.*] Do you mean that if a free water-way of 300 feet were allowed in the Lower Pool, that the steam-vessels might navigate without danger?—I think that would be sufficient for the highway of the river. If the colliers were compelled to go into a dock, there would be very few accidents in the river.

188. Mr. *G. F. Young.*] Do you think the owners of colliers would be very willing to pay a rate for permission to discharge their cargoes in the dock?—The rate would be so very moderate that I do not think they would lose much by it.

189. When you say the rate would be moderate, can you form any calculation what it would be?—I should think 2*l.* or 3*l.* a voyage; and I should think that the accidents that happen during the voyage are quite equal to that.

190. Mr. *Angerstein.*] If a collier-dock were established on each side of the river, one on the north and the other on the south side of the river, would not the river be almost entirely free from the collier craft?—It would, from colliers.

191. Mr. *Hutt.*] Will not the barges be an impediment?—It does not matter for the barges, they do not care about the depth of water.

192. Would not the number of barges offer an obstruction?—You would only have the same number of barges as you have now; and, in fact, not so many, because a great quantity of coals would go in-land without going into the Thames at all.

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193. You are disposed strongly to recommend the formation of a dock for the colliers?—I have no doubt it would be a great thing for the port of London.

194. *Chairman.*] Would the Isle of Dogs be a good situation?—It would be the best; but the Coal Exchange would object to it.

195. Have you any other observation you wish to offer to the Committee?—There is one thing respecting the wherries I should wish to say something about. I think the present wherries are totally insufficient for the service they have to perform in crossing the river, when the steam-boats are passing up and down. Many of them are licensed are carry six or eight persons; and I do not in my own judgment fancy they are equal to go with more than a waterman in them, they are so very shallow.

196. How is it if they are so very insecure as to attract public attention, that the watermen do not of themselves use better wherries?—They are a set of poor men; they cannot afford, very likely, to purchase skiffs. I have thought my life in jeopardy; and I have built a boat which has been very much approved of.

197. Are there not new wherries constantly being constructed upon the river?—There have been a few safer than the original ones, but they are very few.

198. So that they are gradually getting into a better class?—Some few.

199. Mr. *G. F. Young.*] Are not a great many boats built for racing purposes, which are afterwards purchased at a cheap rate by the watermen, and licensed to carry the public?—They are; and they are not fit to carry two persons.

Veneris, 20° die Maii, 1836.

MEMBERS PRESENT.

Mr. Poulett Thomson.	Mr. G. F. Young.
Mr. Fox Maule.	Mr. Williams.
Mr. Alsager.	Mr. Hutt.
Mr. Warburton.	Mr. Alderman Thompson.

MR. POULETT THOMSON, IN THE CHAIR.

Mr. *John Blenkarn*, called in; and Examined.

Mr. *John Blenkarn.*

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200. *Chairman.*] WHAT is your business?—My business is that of a wharfinger and warehouse-keeper at the legal quays in the port of London.

201. Where is your wharf situate?—We have three wharfs; the first is close to London Bridge, the London Bridge New Steam-packet Wharf, Fresh Wharf, and Cox and Hammond's Quays; two of those are leasehold, and one is freehold.

202. Can you state the number of vessels that discharged their cargoes, and the number of passengers that embarked and disembarked at your wharfs last year?—I can; the number of vessels coming to and going from our premises in the year 1835, was 5,769 steam-boats; the number of passengers carried by them over our premises, amounted to 789,203 during that year; the number of vessels from foreign ports in the same year, with dry and green fruits, also general cargoes, those are sailing-vessels, amounted to 406; we have coasting sailing-vessels not included in that account at all; short traders, such as Feversham and Woodbridge, and those sort of places.

203. Have you found from your experience that the transit of shipping through the Pool has been frequently obstructed?—Very much so; there can be no question about that.

204. Will you state to what you attribute that?—To the immense increase of colliers, in consequence of the large consumption of coals principally; the tiers are so much filled up that there is scarcely a passage in the Thames; there is not 50 feet; sometimes 100; but there is, I will undertake to say, not 150 feet left on an average.

205. Are not the harbour-masters bound to keep a width of 300 feet?—By the present law they are.

206. But they do not do it?—They do not, and they say they cannot do it.

207. When

207. When you found that the 300 feet had not been kept according to the regulations, have you not made complaints?—Frequently.

208. To whom did you complain?—We have complained to the harbour-masters and to the navigation committee; I am a member of the corporation of London myself, and I have been 39 years at the water-side, 30 years at the legal quays, and have paid Government above 100,000 *l.* rent, therefore I have had a little experience.

209. Have those complaints been attended to?—The parties do attend to them; but the harbour-masters state that, in consequence of the number of coal-vessels to be accommodated, together with the steam-boats and other vessels coming up the river, it is impossible to find accommodation for the whole, and therefore there has been a great deal of a lenient sort of consideration, until the thing has at last got to such a pitch, they cannot go on any longer.

210. Do you attribute this inconvenience to a want of due attention on the part of the harbour-masters, or to the circumstance of the great quantity of vessels which require accommodation, colliers and others, in the river, which render it next to impossible for them to keep the channel clear?—I would attribute a great deal to the harbour-masters certainly, but still there are times when, perhaps, there should be some allowance made for that; when there is a great influx of colliers, if they are not extremely cautious in not allowing too many to come into the Pool, there is no doubt serious inconvenience arises from that; and from the best inquiry I have made, they admit too many colliers into the Pool at one and the same time, and consequently, we have very large tiers of colliers doing nothing.

211. To whom are the harbour-masters responsible?—To the lord mayor and the navigation committee.

212. How is the navigation committee constituted?—We are a body of general citizens, shopkeepers and persons in the mediocrity of life; many persons of respectability do not choose to belong to the corporation, and some gentlemen, who are selected in the interior of the city, have had but little knowledge, or at least very few of them any knowledge of the navigation of the river; there is a sort of selection made that the deputies and the elder common councilmen should have the preference; we consider there are some committees of more consequence than the rest, and that is certainly one of the committees. I was proposed, having been so many years at the water-side, but there was an opposition to me; and I believe, with the exception of myself and two others, there is no one knows anything of the navigation of the river, except from the information of the harbour-masters; the consequence is, the harbour-masters become the sole directors of the navigation; though the servant of the corporation, the harbour-master assumes authority, attends the navigation committee, and they are of course led by him in a great degree, not knowing much of the business, and therefore their servant leads them I know; it is a very irksome duty, that of the harbour-masters; there is no question of that; but one is at the head, and he leads the navigation committee, because there is no other remedy.

213. Is this committee chosen on account of any peculiar fitness of the persons who are to compose it, from their acquaintance with water-side premises and the navigation of the river, as well as their being particularly interested in those subjects?—Not in the least; that has no reference whatever to it; there are a baker and a butcher, and persons in various trades; it will stagger the Committee of the House of Commons to hear, that so important a river, so important to the trade of London, the finest river in the world, connected with the largest city in the world, should be managed by such persons.

214. What is the number of the navigation committee?—I think about 48, including the aldermen, who very seldom attend.

215. Is the chairman a man chosen on account of his acquaintance with the navigation of the river, or chosen as the others are?—Chosen precisely as the others have been, having no reference whatever to his knowledge of navigation.

216. Is there no part of the committee who have any practical knowledge?—There was one the last year; I do not know whether he is on the committee now; the chairman was a baker in Bishopsgate-street, of the name of Peacock, a retail baker.

217. You say there was one gentleman who had a practical knowledge; was it merely accidental that he happened to have that practical knowledge, or was

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he chosen specially on those grounds?—No; the different wards are in the habit of assembling before the day of election, and they fix among themselves, you shall have the sewers, and you shall have the Thames navigation, and you shall have this and the other; then they come to the Court of Common Council, and when the names are called over of the different wards, "Mr. Blenkarn on navigation;" it is done in that way. If there is no opposition, I am put down on that committee. There is Mr. Joseph Robinson, the only person who has any practical knowledge, has been on the navigation committee; and another gentleman, who has been on at a former period, Mr. John Drinkald, he has been many years at the water-side, and, I believe, those are the only two who have ever been upon it, during my time, that have any knowledge of navigation.

218. Is it not the duty of this committee to instruct the harbour-masters, and to give them orders when complaints are made?—Decidedly.

219. Would it, in your opinion, require that the parties who constitute the committee should have some practical knowledge themselves of the business they are called upon to superintend?—I think there is no question of that.

220. Is there any emolument attached to being a member of the committee?—No further than an allowance for expenses; there is an excursion up the river in the "Maria Wood" once a year, and a few things, amounting, I think, to 500*l.* or 700*l.*

221. Are the meetings of that committee periodical?—Yes, once a week.

222. Do you happen to know whether they are regularly attended?—I believe they are very well attended. On one special occasion, when they came to a decision about altering the 300 feet to 250, it was very badly attended indeed, and it was only carried by a majority of two in favour of 250 feet. I do not know whether they had more than seven or nine.

223. What business does this committee transact if they are persons wholly ignorant of the subject they are called upon to determine on?—Petitions come before them for jetties, driving of piles, and a variety of cases which, by the bye-laws of the navigation committee, no person has a right to do without their sanction; there is considerable business therefore before them; very considerable business sometimes, almost on every occasion; then, of course, if it is a matter of much importance, such as carrying out a jetty at Deptford, or Greenwich, or Gravesend, they go down in the navigation barge and take a view: they then go and dine, and then they come to a conclusion whether they will allow it to the whole extent, or part of the extent, or no extent at all.

224. Do they go upon their own judgment or take practical men with them?—They have got certainly the power of calling in aid every officer belonging to the corporation of London, and they generally take the harbour-masters on these views, and the water-bailiff, and, I believe, occasionally the surveyor of the corporation.

225. In your opinion would that duty be more efficiently discharged by sending down persons who are competent to the work, instead of the committee coming down themselves?—A great deal, there is no question about that.

226. You consider that those periodical trips of inspection are wholly useless?—I do, inasmuch as there is scarcely any applicant but has got his friend belonging to this committee; if he is not himself he will by another route get at them, and there becomes a kind of familiar accommodation, because those are quite irresponsible persons; they come in one year and go out another; they have no self interest in it, and have no lasting interest in it; and the consequence is, that if I can serve my friend, it costs me nothing so to do; therefore, my opinion is, that impartial persons should be sent, and that they should run the risk whether they are to be bought and sold.

227. Do you know whether this committee has reports made to it in writing by practical people with regard to the alterations to be made, or whether they go on the mere observations of the parties they may take down in the barge?—The usual mode is for the committee to go down and take the opinion of such officers as may be thought needful, then to consult together, and determine by a majority either in favour or against; there is no unfairness in that, but I should like to see practical people.

228. Are those practical men paid by the job, or are they salaried officers of the

the city?—Salaried officers. I believe, in some instances, if they step beyond the common bounds of their duty, they are paid extra, but not generally so.

229. In fact, those visits are something in the light of a pleasure jaunt?—It amounts to that certainly.

230. You have described the constitution of this committee, which you consider to be very faulty; what is the remedy you would recommend?—I am a little at sea on that point; but I should wish that if some of the corporators are to form a part of this body, there should be some other persons competent mixed up with them. There is the Trinity House, and there are a number of shipowners, men of considerable ability. I think a mixture of talent would be very desirable indeed; what controlling power the Government should exercise is, of course, with themselves.

231. By whom are the harbour-masters themselves appointed?—By the lord mayor, subject to the approval of the elder brethren of the Trinity House.

232. How many harbour-masters are there?—Four.

233. Is it an office for life?—No; they are liable to be dismissed at pleasure.

234. Is the office practically for life, or for a period of years, or does each lord mayor appoint his own harbour-master?—They are not re-elected annually.

235. Can you suggest to the Committee what, in your opinion, would be the best means of superintendence of the harbour-masters?—I should very much like to have some appointment by officers of some kind; I cannot tell what should be the number of them, but I am of opinion it would be better managed.

236. You would have the harbour-master, who is the executive officer, under the control of the body which is really responsible for the good management of the port, would you not?—Yes, I should say so, but not under the present condition of things, for that would be remaining pretty much as we are. I should be very glad that there should be some amalgamation in our corporation, and a superintending power over the head harbour-master.

237. Do you think if the navigation committee were to be strict upon the harbour-master, and compelled him to do his duty, a passage of 300 feet, which you consider sufficient, would be maintained?—I think there is no question but it might by keeping such vessels as are not required to work the colliers below, at Greenwich, according to the present regulation, until vessels were really wanted to get into working play; but then a variety of causes, such as a change of wind, occasions a sudden influx of colliers, and there are so many excuses those harbour-masters are enabled to make to this incompetent navigation committee, that I am almost fearful we should flounder even after all. I have no question there would be a material improvement by a direction to the effect that the 300 feet should be kept more strictly, because we have observed it has been since the question has become agitated; but I think they would slumber in the course of time into that neglect which saves so much labour; for it is a very laborious duty, the harbour-masters' day and night attendance; and while they are the rulers, I would say, or so much bordering on being the rulers, the committee would not, I fear, have sufficient control over them in consequence of the various excuses they would make; but I am quite satisfied it can be done.

238. You say that the harbour-masters are now the masters instead of being the servants of the committee?—It amounts to that.

239. That the committee have not the knowledge necessary to make their servants do their duty?—Precisely.

240. Have you had reason to complain of shoals and mud-banks in the river causing obstructions to navigation?—Very much, and if anything can show the inefficiency of the navigation committee, I think this will unfold it. I will more immediately allude to the neighbourhood with which I am daily and hourly acquainted, that near London Bridge; there has been a hill about 200 yards in the middle of the river below London Bridge, that has been accumulating for a great many years; it is at the finish of the stream where the current begins to slacken; there the accumulation has taken place. At the time the water-works at London Bridge existed, there was a very great scouring indeed below the bridge to a great extent: if a stone of 2 cwt. were put

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down it would soon find its way 200 yards from the bridge. That hill we applied to the Trinity House to remove; they said it was so hard, being so many years accumulating, until new London Bridge was built, it would be useless their attempting it, but after that the river should have a regular repair, the navigable part of it. The London Bridge committee built this bridge through Jolliffe and Banks, the contractors; the new bridge was to be erected and the old bridge cleared away, totally taken away. But what did Jolliffe and Banks do? They threw the old rubbish and the materials they could not sell, many thousand tons, all the surface, the top of the bridge, with the exception of that they could sell, under the pavement, that went overboard by the shovel; and in some places that stuff was 20 feet deep, because the smaller the arches the greater the quantity of stuff laid upon the arches and between them. I was a daily observer, and we suspected that we should have very serious consequences, and remonstrated with the London Bridge committee, and they said it should be stopped: but how was it stopped? They said it should be thrown in upon the ebb-tide, when it would be carried down. We knew it would be carried down to this hill, which was in the navigable part of the river; they said it should not be thrown over near us; but we found it continued. We went again to the London Bridge committee with petitions; I happened to be present; Mr. Banks and Sir John Rennie, the engineers, were there, and I confronted them. They tried to make excuses; they said it was not so and so. I brought evidence to show it was the fact, and that it would be the means not only of producing serious consequences about our neighbourhood, but when the colliers lay where they were accustomed to have 16 feet water—we ourselves had had good experience, because we had 17 feet at low-water at our premises before the water-works were taken away, and after the water-works were taken away, the current of course being less, we found we were left with 14 feet, and the rest was mud; this stuff came over, and of course filled the river; there was a great deposit; we found we were getting worse and worse every week. We remonstrated again, and then they made a floating platform 200 feet long; when they got near the basement of the bridge, on ebb-tide, they wheeled it down, all the larger rubble such as would not sell, and shot it overboard; their excuse was, that in some places there were 17 feet water, and in others 22 feet; we remonstrated, but it was of no use; at last the London Bridge committee refused to see us at all. Finding that at low-water the starlings of the old bridge, every one of them, showed themselves above water, we again remonstrated; and the next proceeding was, Jolliffe and Banks, finding a great stir would be made about it, the large rubble standing about two feet above low-water mark, went off in front of our premises; and my partner saw them throwing the tops of them off; he went off in a boat to them, and they said that they were throwing them into deep water; he pointed out to them the evil; he found Jolliffe and Banks' foreman doing it, standing upon it, and throwing it as far as he could; for he found there was nearly two feet water where they threw it in, just that the water could cover it; they ultimately left it; and now the fact is, there is not four feet over the old starlings of London Bridge, except where we have been at immense expense to carry out our embankment; and we find, though we have water alongside, the contractors being bound to give us water, when the vessels spring round they come on the next starling; the consequence is, we have been obliged to work away, after applying to the corporation, the starling next to us, and have spent nearly 2,000 *l.*, and are at it still; and the other starlings are left in the same way, which leaves a little more water; four feet is, I will undertake to say, the utmost average of the whole of the old starlings.

241. Of what is the starling composed?—Wood and stone rubble, and every thing else are left. We applied to the Trinity House: they say, "What we can work is sand and gravel, but we cannot go and work among those old piers of stone, which have been lying so many hundred years; the men's tools, called spoons, would be broken every 10 minutes, and we will not attempt it." After some further attempts, we persuaded them to go as near this hill as they could, and we are much indebted to them; but if they could not work 40 tons a day we have paid the difference; we have paid nearly 2,000 *l.* to remove that which Jolliffe and Banks should have done if the committee had discharged their duty, or otherwise they made a most shocking contract.

242. Did you apply to the navigation committee when you found this obstruction

struction being created?—Yes, both the navigation committee and the London Bridge committee; but the navigation committee say, "An Act of Parliament has passed for removing London Bridge and building a new one, and we had nothing to do with it."

243. Mr. *Warburton.*] Was the occasion when you saw them working on the starlings and forcing the stones into the river, where there was only two feet water, previous to the balance being paid to Jolliffe and Banks?—I think it was.

244. Did you apprise the bridge or the navigation committee of the circumstance?—By that time we had been pretty well refused any sort of access; but the harbour-masters were up with us two or three times a week, and persons stationed at the water side did point out all those things to them, and we conceived the navigation committee would attend to it; but their excuse was, that they had not come into sufficient power; they were not obliged to interfere with the power of the Act of Parliament for building London Bridge, and they got out of it that way.

245. *Chairman.*] Is it not the duty of the navigation committee to remove obstructions of that kind, as conservators of the river?—There is no doubt of that.

246. You applied to them and they refused?—We applied to them and were referred to the London Bridge committee, as being the persons acting under the Act of Parliament.

247. Previous to your expending this sum of money in removing this rubble yourself, did you apply to the navigation committee, and call upon them to do it?—No; we applied to the London Bridge committee for that purpose, certainly; because we conceived it was their duty not to have let Jolliffe and Banks off without having discharged that which any man of common sense would say was necessary for the proper navigating the river Thames; they must either have made a bad bargain with Jolliffe and Banks, or made a great concession in letting them off from that which would have cost them more than removing the old bridge.

248. You say you applied to the Trinity House; for what did you apply to them?—To see whether they would not take away some of this inconvenience, seeing that the London Bridge committee had not done it; they said that they could not do it, and that they were not, by the Act, to take gravel within 200 yards of London Bridge, but we knew they would not do anything with the starlings.

249. Did the Trinity House state that they were not under any obligation to raise anything but ballast?—Yes, and not to come within 200 yards of London Bridge; we went to the elder brethren.

250. Whose duty do you conceive it to be to remove such obstructions as do not fall within the term ballast?—I conceive decidedly the duty of the navigation committee, because now everything is in their power from Staines to Yantlet Creek, and their duty is to see to every obstruction, I do not care whether under the bridge or otherwise.

251. Mr. *Warburton.*] You are a wharfinger yourself?—Yes.

252. Do you pay anything to the navigation committee for the liberty of driving piles?—No; we have driven no piles except those we were compelled under our contract.

253. Do you pay anything in the shape of an annual rent to the navigation committee?—Nothing in the world,

254. Did you ever pay them anything on that account?—No; if we had driven any piles we should have been subject to an annual rent. At Gravesend there is a small jetty belonging to the Falcon, near to the jetty; they always had paid 3*l.* or 4*l.* a year for that; but the landlord found that claim was of a questionable character, and he has refused to pay it of late, or if he does pay anything it is less than formerly.

255. Mr. *Williams.*] The navigation committee is one of those committees of the common council to whom a considerable sum of money is allowed by the Court of Common Council annually for the purpose of feasting, and what they call line money?—I am not aware of the latter part, the first part is certainly correct.

256. There is always a contest to get upon that committee, is there not?—Decidedly.

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257. Is it not the custom to place the oldest member of the common council, who has not served upon that committee, upon it?—Yes.

258. Without regard to his capability?—Yes.

259. Supposing that you, who are a wharfinger, and conversant with the water side, were desirous of getting upon that committee, and a tailor or a shoemaker or a baker were to contest it with you; if he could prove that he had a prior claim to yourself in point of seniority, would he not be appointed in preference to yourself?—Decidedly. About three years ago a vacancy occurred in my ward in the navigation committee. I said to the deputy of the ward, who is a fishmonger, the only committee I aspire to is the navigation committee; I have been now so long at the water side, pretty nearly 40 years, I think that it is the situation I am best fitted for. "Oh," said he, "but it is my turn." "How is that?" "Why, because, as the deputy, I have the right of preference." I said, "Well, I shall contest it with you;" but before the day arrived, when it was to be decided, he contrived to make a vacancy for me in the sewers; and I found the feeling of the court was so much in the old fashioned way of dealing out those situations which are desirable, that I abandoned it, because I did not wish to look foolish in having a large majority against me.

260. Do you not consider that from the present mode of appointing the navigation committee by the common council, and the character of that committee generally, they are a body totally unfit for managing the port of London?—Decidedly.

261. You threw out a suggestion that a Government officer ought to be appointed to superintend?—I do think any public officer unconnected with the corporation, or in fact anything would be perferable to the present system.

262. Do you not consider that the committee of the corporation, as now appointed, would be rather an incumbrance than an assistance to such officer?—I can see no use whatever in the navigation committee of the corporation constituted as it is now.

263. You state that by the present regulation of the port of London 300 feet is allowed as the general course of the river?—That is the present law.

264. You state that that is often reduced to 150 feet?—Yes; almost every day.

265. Do you consider that if the harbour-masters were to perform their duty, or the committee of the common council to enforce it upon them, 300 feet might be kept clear without difficulty?—That is my opinion; but that they must reduce the number of colliers in the tiers; they propose 22 colliers, and there are very often more than that; whereas, to give the 300 feet, they should not have more than 18.

266. You state that in some of the tiers the number of vessels is too large?—From the best information that is the fact.

267. Has there not been frequently a delay in unloading the coal-vessels from a deficiency in the number of coal-meters?—Under the old system there was very seldom any failure, but they have now amalgamated the matter with the coal-owners, and given them a controlling power, and as such they can work as much or as little as they please.

268. Have you not heard complaints of the present number of coal-meters being insufficient to perform the duty?—No; I am in no great communication with them.

269. You stated that a quantity of rubbish has been thrown into the river by connivance of the London Bridge committee; do you conceive the Act of Parliament, appointing that committee to build London Bridge, authorizes them to throw their rubbish into the river Thames, that that is within the functions of the navigation committee, and that the committee has exercised its power properly?—Not in the least; there is no Act of Parliament which can justify what they have done.

270. You think if the navigation committee had performed their functions properly, they could have prevented the river being loaded with the mud and rubbish from London Bridge?—There is no question whatever of that, for the Act of Parliament does not shelter them at all.

271. You spoke of a steam-vessel being loaded with the committee going out for a treat; was that treat given by Jolliffe and Banks?—I have understood so.

272. Mr. *Alsager.*] Is it your opinion that if the body of harbour-masters were increased, and greater powers given to them, that would supersede the necessity of the navigation committee?—I should think that there is duty enough for even more than those four; I should say six; I think to do the duty six would be much better than four; but as to depending upon them having their own manual exertion to come into operation for performing the duty, perhaps six would not be much better than four; according to the present plan there must be some controlling power.

273. Mr. *Warburton.*] Would not an intelligent head be still wanting?—Yes, I think there would.

274. Mr. *Williams.*] The navigation committee, in fact, do nothing in carrying their own regulations into effect; they only direct the harbour-master to do so?—That is the fact; the harbour-masters attend them every meeting, and they give directions for the harbour-masters; of course those harbour-masters have assumed a great deal of authority themselves, and give their own opinions; but I think they want a more efficient intelligent power over those servants than the present constitution of the harbour committee affords.

275. Mr. *Maule.*] You say that the harbour-masters cannot keep the 300 feet open; what is the law?—The law is in their favour; there are punishments by fine, and so on; but if once vessels get there, what is to be done?

276. Before what authorities are the fines levied, and what powers have the harbour-masters in recovering the fines?—Before any city magistrate, I presume.

277. Mr. *Warburton.*] Besides that, is there not the power of prosecuting them for obstructing the river?—I am not quite aware how the law stands in that respect, but I am sure it is quite sufficient to effect it; but when a set of vessels come up with the flood-tide, and come up alongside a tier, the harbour-master may say, "You cannot go there." "Oh, he is not going to be there, he will soon be gone;" but the passage is stopped the remainder of the day, and the mischief is done to the steam-boats and other vessels during this stoppage. If it is only for a few hours it may produce very inconvenient consequences in the navigation of the river.

278. *Chairman.*] Are you of opinion that the steam navigation in the river requires regulation?—I think that with regard to speed, it requires caution; and with regard to lights, it requires extreme caution in the dark. I should say that the regulations of steam navigation ought to be revised, but I think that may be very easily done. There is this to be said, a steam-boat is a very unwieldy concern without the steerage way upon her, and if she is coming up on a flood-tide, or going down on the ebb-tide, unless the steersman keeps her under a sufficient way, he cannot control her from going into any tier, because the length is such, she takes so much room in the river. You cannot drift a steam-boat down; she must have steerage way; and though I have heard a great deal of vessels coming up very quick, and so on, I think the present law is quite sufficient to do away with that, for there is a heavy punishment if they do damage; but as to any law about so many strokes a minute, and so on, the difficulty would be accumulated. I see in Alderman Wood's Bill, on this subject, some of the most monstrous things I ever saw in my life.

279. Mr. *Warburton.*] They must go with great speed sometimes to escape danger?—Yes; if a vessel gets into a very difficult situation by putting on the speed, in less than two minutes they perhaps save doing the damage, and get out of the way; and if it were enacted that they must not go for two minutes or five minutes in that way, they would do great mischief.

280. Mr. *Fox Maule.*] Would not they have the power of backing?—Yes, but perhaps that might not save them.

281. *Chairman.*] Your opinion is opposed to restriction on the steam?—I think there ought to be some regulation in regard to the speed, not to occasion a great delay, or it would amount to annihilating the trade altogether; because if a vessel comes to Greenwich, and she is to spend an hour between Greenwich and London Bridge, she must on many occasions bring up alongside some tier; she will not hit it to just the time.

282. What alterations would you recommend as to the speed?—I would rather leave that to wiser heads; I should rather reduce the speed to something consistent; but I think there will be better evidence than mine upon that subject.

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283. Mr. *Williams.*] What do you suppose would be the effect upon the port of London, supposing steam-vessels were not allowed to come higher up the river than Blackwall or Greenwich?—It would be almost the ruin of it, particularly to the city of London.

284. Would it not be injurious to property on the river side?—We pay, rent and taxes, 6,000 *l.* a year; it would be the ruin of our property; part is freehold and part long leasehold, and we should be bound to pay as long as we have a shilling to pay; we pay 1,125 *l.* on the New Packet Wharf; we pay 1,920 *l.* on Cox and Hammond's quay, leasehold property also, and have laid out 25,000 *l.* in the purchase of Fresh Wharf; and since the addition of carrying out the frontage, the interest on the money expended, at four per cent. is 1,600 *l.* a year, so that our rental at the present moment is 4,645 *l.*, and our taxes are 1,245 *l.* 18 *s.* 8 *d.*, making 5,890 *l.* 18 *s.* 8 *d.*

285. Are there not other owners of property on the north side of the Thames similarly circumstanced to you?—Decidedly.

286. Would they be injured to the same extent?—Not to the same extent, for they have not the same proportion of steam trade. The whole of this property between London Bridge and the Tower was under the management of the Lords of the Treasury; two or three years ago they thought fit to sell it. There has been property amounting to about 170,000 *l.* sold by Government to those parties, including ourselves, with no conception that steam-boats would be stopped; our wharf was built under the representation of the corporation, that it would be most desirable for the steam-boats which are now increasing in number, and it would be a great injury to us to stop them, and also on the south side, but not to the same extent; we have done all in our power to accommodate the public, by laying out a great deal of money.

287. You have heard of accidents happening on the river by steam-boats; to what do you attribute those accidents?—To a variety of causes; in the first instance, of small boats that are not at all adapted to the river, as they are now constructed. I took the trouble to have a model of a boat made—[*producing the same*]—which I have no objection to leave if the Committee think fit; here are the particulars of the dimensions of such a boat as, from the best information I have been able to collect from pilots and others coming to our premises, could be adopted; it is supposed there would be more buoyance and better protection against the swell of the steam-boats. I have prepared the statement:

	Feet.	Feet.	Inches.
Length over all	(keel 18×0)	22	0
Extreme breadth		5	0
Depth at main thwart		2	0
Breadth at backboard thwart		4	6
Depth at backboard thwart		1	10
Floor-heads at backboard thwart		3	6
Floor-heads at main thwart		3	6
Spray thwart floor-heads		3	0
Free board when light		1	8
Free board, with eight persons		1	0

can be rowed by one man against the tide, three and a half to four miles per hour; with the tide, from seven to seven and a half miles per hour.

288. What would be the expense of such a boat?—Mr. George Hanston, of Greenwich, who has made the model, would build such a boat with good materials for 22 *l.*

289. Do you consider that if boats of the description you have now shown the model of were to navigate below bridge in the Pool, and a passage of 300 feet were always kept clear, those two circumstances would be sufficient to prevent the occurrence of accidents similar to those which have taken place the last two or three years?—There cannot be a doubt of it; but I think there should be also due regard to the navigation of the coal-barges in two points, one not to lade them so deep, for they sometimes have but three or four inches, and I think there should be a foot; and the next, that they are short handed in navigating them; that is a source of great grievance, inasmuch as they drift them up broadside, that takes of course more room, and when the paddle of a steam-boat comes past it is apt to dash water in.

290. Mr. *Warburton.*] Must they not go up broadside when there is adverse wind?—They must, certainly, in that case; but they generally go in that way in the Pool.

291. Mr. *Williams.*] Do they go quicker, or what is the reason of their going in that way?—It saves labour; the tide carries them up almost without manual labour.

292. Is there any regulation to compel those boats to go headforemost instead of sideways?—No, there is no regulation.

293. Do you consider that such a regulation as that could be enforced?—I think with two men in the boat it could, but not with one.

294. *Chairman.*] The consequence of any regulation compelling the boats to go a straight course would be that two men must be employed instead of one?—Taking the variation of the wind, I think so.

295. Mr. *Warburton.*] Would two men in a strong wind be sufficient?—Yes; but it would be in a great measure remedied by that; the watermen on the one hand, and the coal-barge managers on the other, have a great many of those accidents to blame themselves for, for though they employ coal-barges to bring coals into the river, they have the greatest enmity to steam-boats, all watermen and lightermen; and they would be very thankful to get them stopped at Blackwall, though, I believe, they have been the saving of them.

296. Have you turned your attention to the construction of a collier dock, with the view to removing the obstructions now caused in the river by the accumulation of colliers?—My attention has been drawn to it ever since I could reason almost. I have always been of opinion that is the only remedy for the river Thames, and I have always been pleased to see projects brought forward from time to time; they have been overruled up to the present hour, but I think the day will soon arrive when necessity must produce a collier dock.

297. Has the failure of the construction of a collier dock arisen from objections made to it by the coal-owners?—I believe principally by the coal-merchants and the coal-owners; the coal-owners appear to have taken a great alarm at it.

298. Do they anticipate a great increase of charge?—They do, on the one hand; and they thought that by going into a dock all down the river, when that was pointed out at the Isle of Dogs, the boats would in the swell of the Limehouse Reach be altogether swamped and sunk; that was one of their arguments; and the other was the increase of charge; but I believe both will be found to be fallacious.

299. Mr. *Young.*] Do the ship-owners make any objection?—I am not quite aware whether they do or not. I have been a ship-owner myself for many years, and I am quite satisfied the wear and tear of a ship in the dock would be much less than it is now in the Pool, and that the ship-owners would be much benefited; and I am quite satisfied that the public, as the consumers of coals, would feel little or no effect from the tax put upon it, which would be a very considerable remunerating price to a place so selected; or in fact, almost any place selected which would be convenient for the coal that comes up the river; of course it should not be too high, as they would have to come up to the dock and go down again, and to avoid that as much as possible in the crowded part of the Pool, I should say the Commercial Dock or the Regent's Canal would be most convenient to the colliers; but they might be made more capacious and convenient still; but that must be done ultimately; and we shall never get the river Thames right till that is done.

300. *Chairman.*] Have you seen the plan for the construction of a collier dock within the Commercial Dock?—I have not.

301. Mr. *Young.*] Have you seen one at the Regent's Canal entrance?—No; I have heard of it, but not seen it.

302. Mr. *Hutt.*] Have you seen one in the Isle of Dogs?—I know there was a suggestion of that some years ago; that might be effected at a small expense. It must be borne in mind, in regard to stopping steam-boats, that it is not the present boats alone, but in less than three years there will be five vessels out of six in the coasting trade propelled by steam; and I should be glad to know what is to become of the water-side property; nearly half the business now done there must be stopped, if the steam-boats are stopped down at Blackwall, and the goods carried up in promiscuous open barges, with all sorts of plundering between that place and the place of reception. It will depend upon

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the plan which may be suggested; but I am quite prepared to contend, that in making our arrangements we have not paid merely for what we are to get by the state of trade as it is now, but what we may anticipate. Since this table was drawn up we have got Hull and Stockton vessels, and are expecting others, and if they are to be kept down below, they may as well stop up the Thames at once.

303. Mr. *Young.*] Were you ever the owner of colliers?—Yes; we had three vessels which brought coals and merchandize; the vessels lay off the Tower to discharge the coals, and the merchandize was brought up in craft to where the Southwark Bridge now is.

304. Mr. *Hutt.*] What spot do you consider best adapted for the formation of a collier dock?—I am not prepared to speak to that.

305. Mr. *Young.*] Is head-money paid by the passengers who pass over your wharf to the steam-vessels?—Yes.

Mr. *Christopher Richardson,* called in; and Examined.

Mr. *C. Richardson.*

306. *Chairman.*] WHAT is your business?—I am a ship-owner and timber-merchant and wharfinger.

307. Are you practically acquainted with the navigation of the river?—I think, having lived for 36 years on the banks, I know a good deal of what is going on.

308. Will you state to the Committee your opinion respecting the present state of the Pool, as far as it offers convenience or obstruction to the navigation of the river?—I think that the obstruction is very great at present; I think it might be very much remedied, and I think there are two or three things that require regulation with respect to the river; my own feeling about the river is, that it is like the King's highway, it should be open for all parties that want the navigation; that is not the case at present.

309. Will you particularize the objections of which you complain?—I think the obstructions arise in a great degree from the mooring of the colliers and the improper management with respect to them; there is not that attention paid with respect to those vessels when they come into the river which there should be.

310. What is the general obstruction created by the colliers; having too many of them?—In the first place, they lie more in number in tiers than they ought to do; another point is, that those vessels moor with their own anchors instead of being at proper moorings; the consequence is, when there are 18 or 20 ships in a tier, if the centre ships have discharged their cargoes, they break out from those tiers, and try to drop to single anchor below; the consequence is, those tiers occupy as much room, or nearly as much, as if all the vessels were remaining in them, whereas if they were at moorings they would draw into each other, instead of occupying the space they do. The situation I live in is at the lower part of the Pool, where I have as fine a view of the river as is possible, and the operations upon it; the effect of the colliers delivering in the manner they now do is this, that when they are nearly discharged they break up from the tiers and drop down into single moorings, and I was noticing last Saturday week there were no less than 13 vessels lying at single anchor below the lowest tier in the river; the consequence was, that they occasioned a very great obstruction; those vessels ought, in my opinion, to have taken in their ballast, as they were lying in their tiers, then they would have gone away without creating the confusion they do.

311. The Committee then are to understand that the obstruction is a double one. You complain of there being too many ships in a tier, and you complain besides of the colliers after they have left the tiers obstructing the river by dropping down to single moorings?—Yes, I do, particularly in the latter case; and for this reason, the form of the river just below the Lower Pool is something in the shape of a horse-shoe; the obstruction arises from the vessels lying by a single anchor below the lowest tier, which lies just at the bend, which prevents vessels working up, as they otherwise would do.

312. Whose duty is it to see that those obstructions do not arise?—I suppose it rests with the navigation committee and with the harbour-masters.

313. Have you ever made complaints of those obstructions either in the tiers or below?—I have made applications, I think, between two and three years since,

to

to the Thames navigation committee, stating the inconvenience, because close to my own house is the entrance to the Regent's Canal, with which I have very considerable connexion and business; I have likewise made application, but that has been more in a friendly way, to one of the harbour-masters, Mr. Cousens, with whom I am acquainted; and the inconvenience which parties are suffering has been repeatedly pointed out.

314. Have your representations been attended to, and a remedy afforded?—No, never; not in the least.

315. Have you repeated your representations?—No; I know that applications have been made by other parties, and that they have had no attention paid them; the Regent's Canal Company have made application on the subject; a neighbour of mine, a ship-builder, Mr. C. Dawson, jun., has made application, from the inconvenience he sustains from not being able to take ships into his dry-dock when he wanted to do so.

316. Is there not a regulation of the port committee, that a clear passage of 300 feet shall be kept?—So I have understood; I think it absolutely requisite it should be so.

317. Is that regulation infringed?—I am sure myself that it is, because I see the ships lying in a larger number in tiers than they ought to do.

318. How is this committee, which has under its superintendence the harbour-masters, composed?—I believe principally of tradesmen of the city of London and shopkeepers.

319. Are they persons practically acquainted with the navigation of the river?—I should think not; I should consider that they were not so.

320. Mr. *Young*.] Have you any remark to make to the Committee with regard to the obstruction occasioned by the coal barges specifically?—I think they are lying more as warehouses than formerly for the removal of goods from the ship to the wharf; I have seen them lying there constantly blocking up the place.

321. Mr. Alderman *Thompson*.] Do you think it practicable to maintain a clear passage of 300 feet through the Pool?—I think there can be no doubt of it; I should ground my opinion on a friend who has nautical information, that is Mr. William M'Kellar, who was once candidate for the appointment of harbour-master, a master in the navy.

322. In your opinion, unless this be maintained, it must materially depreciate the value of property which lies near London Bridge?—Certainly.

323. Do you know how many hours of each tide the harbour-masters are on duty?—I do not.

324. Do you know that they are obliged to be on duty immediately on flood-tide?—No, I do not know what the regulations with respect to the harbour-masters are.

325. You consider that if they were attentive to their duty they might easily enforce the maintenance of the 300 feet?—Yes.

326. Do you think that four harbour-masters are sufficient for that duty?—Very likely they may not; I think when there are large fleets coming up, when the wind comes round to the east and the north-east, and there is not only a large fleet of colliers coming up, but also a large fleet from the Baltic, they may not be.

327. How many harbour-masters do you believe it would require to do the harbour business sufficiently?—I do not know in what way it might be best performed.

328. Mr. *Fox Maule*.] Suppose there were an efficient police force on the river, under the direction of the harbour-masters, would not that be a great advantage towards arranging the vessels to keep the passage clear?—No doubt it would; the harbour-master having the chief superintendence and management, and those persons acting under him.

329. Mr. *Hutt*.] Do you conceive the formation of a collier's dock desirable to the navigation of the river?—My opinion is, that there should be a collier's dock or colliers' docks, two would be better than one; I think there should be one on each side the river, or the river will never be in the state it ought to be for the transit of the whole commerce of the metropolis.

330. Mr. Alderman *Thompson*.] Have you represented to the harbour-masters the crowded state of the river, and the great inconvenience the public sustain

Mr. *C. Richardson.* from that state of things?—I have never done it officially to them, but I have done it when I have been talking with them.

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331. What reason have they given for things being in that state?—The excuse given by one of them was, that he did not think he had sufficient power; that he could not control the vessels coming up.

332. The want of a more efficient system?—Yes.

333. *Chairman.*] You stated that you consider, with proper regulations, the Pool might be kept clear; what are the regulations you would suggest?—I think the harbour-masters should be more on the spot than they are; I think the harbour-masters ought to be living on the banks, then they would see more of the inconvenience that arose from the present state of things; I think if there were one at Greenwich and another about Limehouse, it would be better; one or two reside at Greenwich perhaps, but then they do not live on the banks of the Thames, which I think they all should.

334. Mr. *Young.*] Do you think benefit would arise from managing the river by separate jurisdictions, and placing each harbour-master especially to superintend the division in which he might reside?—I think it would, for their attention would not be then distracted from the duty they have to perform.

335. You state that you think a police force to assist the harbour-masters might be of benefit; do you think it would be possible for any police force to effect or assist in the removing of ships?—It must rest with the harbour-master, the mooring the ships; but he should have the means of enforcing his orders.

336. Do not you think it preferable he should rely on a well-digested system, enforced by penalties in case of disobedience, than on any attempt by force to compel persons to comply with the regulations?—Yes, I think so.

337. Do you not think that the interference of the police might give rise to the danger of violent affrays?—I think only that the police should aid and assist the harbour-masters.

338. Mr. Alderman *Thompson.*] Are you aware that a master of a ship is liable to be fined if he does not place his ship as directed by the harbour-master?—Yes, I am told that is the case.

339. Do not you consider that the penalties to which he is subjected would, if enforced, effect a sufficient control over the masters of ships without any police force?—I think it would if some few were made an example of, that it would have the effect of keeping the others in better order; but they do not enforce the penalties now.

340. *Chairman.*] As you have seen this obstruction and have suffered from the inconvenience of it, how comes it you have not made representations to the navigation committee itself, and insisted on their doing their duty, and causing their servants, who are the harbour-masters, to enforce their regulations?—I did make an application about three years since, but I never received an answer from the corporation. I detailed some of the inconveniences. I know my letter was before the committee, but I never heard anything from them; and it is a very unpleasant thing to be constantly harassing persons of that description.

341. Mr. Alderman *Thompson.*] You have signed memorials with other proprietors alongside the river, complaining of these circumstances?—I have.

342. *Chairman.*] Those representations have been unattended to?—They have.

343. You have stated that you can suggest to the Committee some remedies for this state of things; what are they?—A better arrangement with respect to the harbour-masters; making them pay more attention to their duty.

344. How would you propose to effect that; would you put the harbour-masters under any different control?—I have thought myself, under the control, as they now are, of a committee of the city, that is very inefficient; but I think if they were placed under such a body as the corporation of the Trinity House, that would have a better effect.

345. You think that the fault lies in the navigation committee, who have not compelled the harbour-masters to do their duty?—I think in a great degree it lies with them; if they were to enforce their orders the thing would be in a better state than it is.

346. Do you approve of the constitution of the navigation committee?—I think there should be a body to look after and to manage the duty of the river. I do not know whether it should be under a navigation committee, or under the direction

direction of the elder brethren of the Trinity House; but there ought to be some one to have the power to control.

347. Is there not some one now?—I understand it is under the navigation committee; but I am not a citizen, and, therefore, do not know the regulations there may be with respect to their powers. I understand they are the parties to apply to.

348. You think the body, as at present constituted, does not afford the remedy which it ought?—I think it does not.

349. Can you suggest any improvement upon that constitution?—No, I am not sufficiently acquainted with the constitution of the committee, or their laws or regulations.

350. Independently of those obstructions by colliers, have you ground to complain of any obstructions from shoals and banks having impeded that river?—I have not myself; I know there is one bank, a very little way below my wharf, at Limehouse Hole, which has taken my attention several times, and I have seen vessels ground upon it. I can see sometimes the large steam-boats in going down have grounded upon it; that is off Limehouse Hole, a considerable way out from the northern shore.

351. Mr. Alderman *Thompson.*] Has that bank been increasing of late years?—I have not observed it; but I have noticed it more since the introduction of large steam-boats into the river.

352. How long has it existed?—I have seen it some years.

353. Have you turned your attention at all to the construction of a collier dock?—I have seen several plans for a collier dock, one in our own neighbourhood, and one on the south side, as connected with the Surrey Canal.

354. Is this, before the Committee, the plan to which you refer?—Yes; it was submitted to the proprietors of the Surrey Canal.

355. What is your opinion of the advisability of a collier dock, compelling the colliers to go in?—I think that would be of benefit, by relieving the navigation of the river.

356. Mr. *Hutt.*] With a view to the economical supply of coal to the metropolis, do you think a collier dock desirable?—I think so; I have no doubt eventually that it would be for the benefit of the community, they deliver now so small a quantity of coals from the ships, when they might deliver treble the quantity. The expenses attending a ship lying in the stream with a number of hands on board are much greater than in a dock; and there is not a ship but must receive some damage from lying in the stream.

357. Look at this plan; would the construction of a dock in this site be attended with a considerable expense?—I should think not; that property is not very valuable; but it has no connection with the northern side of the river; there should be one on the north side also.

358. Have you seen the plan of a collier's dock in the Isle of Dogs?—I saw one some years since; but I think they objected to it, as being too low down the river. There was another, which embraces a part of the property I hold on the north side, near the Regent's Canal, which would be very advantageous, because that canal is so connected with the interior of the country, and likewise the western part of the metropolis.

359. Is the ground much built over there?—Part is formed into a dock now; it would be only extending and enlarging it.

360. *Chairman.*] Are you to be understood to say, that the colliers which ordinarily lie in the river could discharge three times the quantity of coal they do now in the same time?—Yes; I am told that they generally reckon the discharge of coals at about 50 tons a day per ship; whereas a ship can deliver 150 or 200 tons.

361. So that there is no occasion, with reference to the supply of coal, to the town, that so many colliers should lie in the Pool at the same time?—No, I think not.

362. What is the object, in the crowded state of the Pool, of admitting so many colliers together?—A calculation, I understand, has been made, that a smaller number should be admitted; and if it was kept to that point there would be no inconvenience arising from them; but it is from a greater number always coming up than that stipulated; they increase the width of their tiers, and that causes great inconvenience.

363. Would there be, in your opinion, any inconvenience in limiting the

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number of colliers below what it is at present, as far as the supply of coal is concerned?—No, I think not.

364. Mr. *Hutt.*] If a collier could deliver 200 tons, and it appears that practically they deliver only 50, they might be diminished to one-fourth?—Yes.

365. *Chairman.*] Are there any further observations you wish to make to the Committee?—I think there might be some restriction on the speed of steamers, compelling them to stop and take in their passengers, and to disembark them.

366. Mr. *Young.*] Are they in the habit of taking in and disembarking passengers without stopping their wheels?—Yes, they are sometimes. I went down in one of the Gravesend boats one day; a boatman, an experienced man, pulled alongside; they would not stop their engine; and I observed last Saturday they would not even stop.

367. Mr. Alderman *Thompson.*] Is not that attended with great danger?—Yes; but I always go off in a skiff for the purpose.

368. Do you think the Thames wherry used at present is the best boat which could be adopted?—No; it is an unsafe boat; I think it is well worth the consideration of this Committee adopting a better form of boats.

369. Mr. *Young.*] Independent of the swell occasioned by the steamers, is there not considerable swell in some winds, in that part of the river opposite to your residence?—Yes.

370. So as, in your opinion, to render the wherries unsafe without reference to steamers?—Yes; I think they are not at all calculated for traffic on the river in the present day; those boats would have done perhaps formerly, when there was little traffic comparatively, but that requires another description of boat now.

Mr. *Thomas Farncomb*, called in; and Examined.

Mr. *T. Farncomb.*

371. *Chairman.*] WHAT is your business?—I am a wharfinger on the southern side of the river, very much engaged in the coasting trade, and at times have found very great impediment in getting the ships which trade coastwise up and down through the Pools. We have made a memorial to the navigation committee some time ago, stating the fact that the trade in general was very much incommoded in consequence of not having a sufficient passage up and down through the Pool. It has been suggested, and the wharfingers presented a memorial to the navigation committee, that a space of at least 300 feet should be kept clear for the navigation of the coasting trade and other trades coming up through the Pool, for almost weekly some of the vessels coming up or down get great damage; they carry away their bowsprits, booms, or some part of their tackle; then we are obliged to sue the parties for the damage sustained; and it has been represented to us by the captains who go up and down, that in consequence of the collier tiers being badly placed and crowding on one another, there is much confusion produced, and that there are not proper precautions taken to moor them in fit and proper places. It has been suggested, and I believe very properly, that only a certain number of colliers should be permitted to moor in that part of the river which is generally called the Upper and Lower Pool, and that other ships in the coal trade should be kept below till the first had unloaded. There is another evil we frequently experience, which is this: that vessels in the coasting trade, and which go occasionally to Newcastle or Stockton to freight with coals, come up through the Pool and lie above the Pool, at the tiers off the legal quays and coasting wharfs; and that occasions a great overflowing of the tiers, a greater number of the ships being placed on the tiers than they can properly accommodate. The plan would be to keep coal-loaded ships below, or to have collier docks. I come here merely to complain that the river is not so well managed or arranged, from some cause or other, as it ought to be, to give free scope to the trade which is now going on in the river Thames; and I believe it must be known to every gentleman that the increase of trade has been so extraordinary, even the coasting trade; in Robson's Directory there are now set out about 1,000 sailing vessels in that trade; and when it is considered that some of those are weekly vessels, some every fortnight, some every three weeks, others once a month, if the number proceeding every week is considered, it is almost beyond calculation; and if there is not a full scope for those vessels to carry on the trade, even the Government is suffering, for nearly all the foreign goods they carry are duty-paid

paid goods. It is not like foreign vessels which go in and take out bonded goods, on which the Government gets little benefit on the payment of duties. I conceive, therefore, it would be very judicious on the part of Government itself if proper precaution were taken so to organize the river that there should be free transit for the ships going up and down; and as I have a public sufferance wharf, I beg to call the attention of the Committee to that circumstance. I have seen a plan by Sir John Hall for forming the tiers, 18 in a tier, and keeping ships below to supply their places; if that were adopted it would be the means of keeping a clear space of 300 feet through the Pools.

372. Mr. *Alsager.*] Does not it occur to you that there might be great relief by limiting the number of colliers to the river, that when so many are admitted and are in possession of the tiers, no other ships shall come in till they are clear; or do you think that would enable them to put a higher price upon their coals, from their knowing they must be cleared before other ships are admitted?—No, I do not see that; inasmuch as there are not, I believe, above 150 meters to be employed upon them, therefore the number of meters must be increased if the number of ships is much increased.

373. *Chairman.*] One of the principal obstructions you say, is the quantity of colliers there are in the Pool, and their berths not being sufficiently well regulated?—Yes, that is my humble opinion; and it is the report of the masters of vessels coming up and down that the crowded state of the Pool makes such confusion, that it is impossible sometimes to get up or down, and we have had ships detained two tides.

374. How high do the colliers come up?—To the Upper Pool; they come up very near to the London Docks.

375. Is it not a regulation of the navigation committee that a channel of 300 feet shall be kept?—I have understood there was a bye-law to that effect; if that can be kept up I shall be satisfied; but I complain that it is not kept up.

376. Practically is it kept up?—No, certainly not; from experience I know it is not.

377. Have you ever made any representation complaining of that?—Nothing more than memorializing the navigation committee.

378. What answer did you receive?—Merely to attend their next meeting. I attended last about March, but I was not called in.

379. Did you memorialize again?—No, there has been no opportunity that I am aware of; I do not belong to the corporation, and therefore I do not know their proceedings.

380. Were not you inclined to push forward your representations?—No, we are so much engaged in business, we leave it to those who can do it.

381. Mr. Alderman *Thompson.*] You have equally with the owners of other wharfs memorialized the corporation, have you not?—We have.

382. Have you ever got any redress?—No.

383. Have they shown a disposition to redress your grievances?—I was told that, after the last memorial was presented, there was some former bye-law ordered to be acted up to that the 300 feet should be kept open, and that satisfied me.

384. In point of fact, has it been kept open?—It has not.

385. Do you consider that the harbour-masters possess sufficient practical knowledge for the duties they have to discharge?—I do not know the harbour-masters.

386. Mr. *Alsager.*] Do you know the constitution of the navigation committee?—I do not.

387. *Chairman.*] Are you of opinion that the harbour service in the Thames is properly performed?—I think not; I have always thought that the harbour-masters had not power sufficient given them; I think if they had greater power than they have, they would regulate things better.

388. Mr. *Young.*] Do you know the powers they possess?—I do not.

389. Mr. Alderman *Thompson.*] Have you ever read the Act of Parliament under which the navigation committee is constituted?—I have read it, but do not bear it in mind. I am not acquainted with the constitution of the committee, or the members of whom it is composed.

390. Mr. *Young.*] Should you think any persons practically unacquainted with the navigation of the river fit to be placed in superintendence of the system

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by which the navigation of the Thames is conducted?—I should say not, certainly. I am in the habit daily of hearing what the captains and pilots and watermen say, and I know the damage that vessels sustain.

391. Mr. *Alsager.*] Did you ever suffer any damage from the undulation of the steam-boats at your wharf?—No.

392. There is no damage done to your wharf?—No; I think our wharfs are so well protected that, they are not bare mud walls, like some others, and, having the vessels lying alongside, the power of the water is broken by the vessels lying there.

393. Mr. Alderman *Thompson.*] You state there are about 1,000 vessels engaged in the coasting trade to the port of London; that is the number exclusive of vessels in the coal trade?—Certainly; I derive my information from Robson's Directory.

394. *Chairman.*] Do you find that obstruction arises to the navigation from accumulations of mud and shoals in the river?—I can speak to that only from the information I received, particularly from one old gentleman, a West India captain, who says, about 30 years ago, when he lay on the north side, he had 22 feet water, and now there is not above 16 or 17 feet at the same time of the tide.

395. You are not practically acquainted with that?—No, I am a wharfinger; I am not captain or pilot of a vessel.

396. Mr. Alderman *Thompson.*] Do you conceive your property is materially injured by the want of accommodation in the Pool?—I think our trade is materially impeded.

397. If not remedied, must it have an injurious effect on your property?—If the trade goes on increasing, as it has done, there must be remedies, or the trade will be stopped.

398. Mr. *Alsager.*] Have you turned your attention to the formation of a collier dock?—No; but if collier docks were made, it would no doubt relieve the Pool at once.

399. Are there any impediments higher than that?—Yes; many vessels, such as Hull and Stockton vessels, which go occasionally to Newcastle and Stockton for coals, in consequence of having their wharfs, at which they load coastwise, higher up, slip up through the Pool and get moored opposite the Tower, or the Custom House, or the tiers of the coasting wharfs, and discharge their coals there: if a law were passed, that no collier shall come up above a certain spot, that would tend greatly to keep the river open; those vessels do not consider themselves exactly as colliers, though coal loaded. I think that no coal-ship should discharge above a certain place; but many of the Stockton ships bring up their coals and deliver them opposite the coasting wharfs, and many of the Hull vessels deliver up opposite the Tower, Custom House or coasting wharfs.

Captain *William Kimin Maughan,* called in; and Examined.

Captain *W. K. Maughan.*

400. *Chairman.*] YOU are dock-master of the London Docks?—I am.

401. Are you practically acquainted with the state of the river in the Pool?—I am.

402. Have you reasons to object to the present state in which it is kept?—Just now it is very well kept; within the last two or three weeks there has been a limited number of colliers; generally, I think, there is an objection.

403. State of what it is you complain?—The excess of ships at the several tiers, beyond what is prescribed by the bye-laws.

404. Do you mean the colliers?—Yes, I now speak of the Lower Pool, on the north side, which, I believe, is the place most to be complained of; there is one tier immediately next the London Dock, the Bell Wharf tier, to which I particularly refer; the bye-law states that there shall be no more than 20 ships allowed; on the 23d of November there were 23; on the 26th, 24; Friday the 4th December, 23; the 5th, 22; Monday the 4th of January, 26; Monday the 18th, 24; Monday, February the 21st, 23; and April the 8th, 23.

405. Did you count those numbers on those respective days?—I did.

406. Have you made any complaint of that infraction of the bye-laws?—I have.

407. To whom did you make it?—To the harbour-master.

408. You

408. You did not make it to the navigation committee?—There have been many complaints made. I think last year we were four or five days before the navigation committee to get the nuisance abated; and in 1832 there were a few days' inquiry, and our chairman attended Mr. Alderman Wood on the subject; and it was distinctly promised by Mr. Tickner, the chairman of the port committee, that no further infraction of the bye-law should take place; but in less than a fortnight I observed, that instead of being 20 sail there were 26. I asked how it was, and the reply was, that application had been made to Mr. Tickner, by the committee of the coal trade, and that in consequence of more room being required, he had assented to an increased number of ships beyond those prescribed in the bye-laws.

409. Have you found that the complaint you made to the harbour-master has been attended to?—No, certainly not.

410. The evil continues?—Yes.

411. Mr. *Young.*] Did you make them verbally or in writing?—I made them verbally as I saw them daily.

412. *Chairman.*] Is the inconvenience very great to all ships passing to the London Docks, the St. Katherine's Docks, and the Grand Surrey Canal Docks?—Unquestionably it is.

413. As well as to legal quays?—Frequently the whole navigation of the Pool is so much impeded in a strong north wind, it is hardly practicable to get a ship up, and I have seen the river completely obstructed.

414. What is the least space which you consider adequate for the safe navigation of the river?—I should say 300 feet, and that the present bye-laws should be maintained and sufficient space given for the colliers. There was a plan laid down, which provides for 150 colliers, that was approved by the coal committee; they agreed that the 150 colliers would meet all their necessities. This plan provides for the 300 feet to be kept, but it involves a question of expense as to moorings.

415. Mr. *Alsager*] That 300 feet would admit of barges lying there, either receiving or delivering on the outside of vessels?—Yes, the 300 feet will include that.

416. Mr. *Young.*] Do ships being moored with their own anchors, change their positions much now under the influence of strong northerly winds?—Yes, and that is a great evil; it is not always from the great number of vessels in the tiers, but from the strong northerly wind we had three weeks ago. I have seen a very excellent passage on the ebb-tide, but no sooner has the flood made, than the tide setting first on Limehouse shore and then turning off, catches the tiers of ships on the bows and quarters and passes them completely over to the south shore.

417. Are you of opinion that, even if the regulation of keeping the 300 feet clear were adhered to, as far as the placing of ships was concerned, unless they were also fixed to that position by moorings, it could not be rendered effectual keeping the passage clear from the violence of the strong northerly wind?—Yes.

418. Mr. *Alsager.*] Could moorings be so laid down that the expense of taking them in would not be more than the wear and tear of their anchors and cables?—Yes; there is very little wear and tear now.

419. If they are to be laid down and an expense charged that the freight on the voyage will not bear, they would for economy lie at their anchors and cables?—I should recommend that not so many moorings should be laid down; that there should be moorings for the two outside ships and the two inside ships to preserve the inside passage, and moorings in the centre to steady the tier.

420. Would a crab stone do that?—I proposed in the common council, as it was a question of expense, to do the whole at 123 *l.* a buoy.

421. Mr. Alderman *Thompson.*] How many buoys would it require?—Six to each tier would make it very secure, but two were then only proposed.

422. Did the port committee make any other objection?—The port committee did not go into the question of expense at all; they did not entertain it; but the harbour-master said it would not be practicable at that low estimate.

423. They did not entertain your plan?—No.

424. When was it you submitted it to them?—The 24th of July last.

425. Was the plan discussed by the harbour-masters and the committee in your presence?—Yes.

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426. What was the result of the general discussion of that plan?—That it was not adopted.

427. *Chairman.*] Did the committee discuss that plan?—Yes.

428. Were there men on the committee practically acquainted with the subject sufficiently to discuss it?—I was quite surprised by the ability they manifested throughout, not expecting that gentlemen in their way of life should be so conversant with nautical matters.

429. The members of the committee then did appear to know something on the subject?—I was quite surprised at the manner in which they handled the evidence, which occupied three or four days.

430. Mr. Alderman *Thompson.*] Of how many did the committee consist?—Seven or eight, and two or three of the aldermen were present.

431. *Chairman.*] How many ships do you consider can lie in a tier?—I propose in two of the tiers, 19 sail, in Bell Wharf upper tier and Bell Wharf lower tier.

432. What is the number allowed now?—Twenty at each of the tiers at Bell Wharf; I propose at Stone Stairs 16.

433. How many are allowed now?—At Stone Stairs 16; I propose at Ratcliffe Cross upper tier, 15.

434. How many are allowed now?—I think 18; I propose at Ratcliffe Cross lower tier, 13; there are now allowed 17.

435. Do you propose to allow accommodation for as many ships in all as at present are accommodated?—The fact is, the tiers are so ill regulated that sometimes we find 22 or 23 ships in one tier; the next tier perhaps only 14; and perhaps we shall find instead of being five tiers, there are only four; in a strong wind, the ground being of a very light description, the anchors drag, and they ultimately get so far down that the lower tier is taken away, and that for a week or ten days before the tiers are gone down low enough to make a fresh tier.

436. Mr. *Young.*] Is it your opinion that a system might be arranged under which the same number of colliers that are now permitted in the pools may be accommodated, and still a passage of 300 feet kept clear?—Most decidedly; I see no difficulty; but it must be by a system of moorings.

437. You think that the inconvenience now often arises more from the defective system of moorings and a want of the power of carrying into effect regulations that are made than from any absolute difficulty in arranging a system properly?—I think more the want of moorings than any want of attention of the harbour-masters; I have seen when there were not the number prescribed, the river has been blocked up; it is not the fault of the harbour-masters.

438. *Chairman.*] Is it your opinion that under proper regulations the colliers might be allowed to lie in the Pool to the same amount they do at present, and that it is not necessary for the navigation of the river, that they should go into any other place?—That is my decided opinion; I have been in the coal trade, and have known the river 35 years.

439. Mr. Alderman *Thompson.*] How long were you in the coal trade?—In the coal and coasting trades above nine years, and 14 years I have been in the Hamburgh trade.

440. Do you think the harbour-masters are on the river a sufficient length of time, on the ebb and flood tides?—I think they might be a little more attentive on the flood, and get the vessels a little quicker into the tiers.

441. Do you think any part of the obstruction arises from the want of sufficient control on the part of some responsible person to see that they do their duty?—I think the power of the harbour-masters should be increased, that they should have power to remove all vessels forthwith without waiting for 12 hours, as the bye-law requires.

442. Mr. *Alsager.*] You would recommend a system of moorings with two chains up the river, from where the colliers lie in Lower Limehouse Reach, up to what spot?—Up to the Tunnel.

443. You say that the sort of moorings you would recommend would be stone?—A single stone, a square stone of five tons weight.

444. How long will the shank of that stone last, would it sink itself in the mud?—I would cut a hole for it about six feet deep, and bury the stone, and put about 60 or 80 tons of clay and gravel ballast, and cover up the stone. I believe the stones have been at the London Dock river buoy 32 years.

445. The

445. The iron does not wear with the tide?—No, not to be of any importance.

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446. What would be the expense of a single stone?—A single stone with chain and buoy, 125*l.*

447. Six of them you would propose to a tier?—In this plan I have proposed that one should be tried at the outside for each vessel, to prevent the tiers sweeping into the channel; but the in-shore passage is very important when the craft are passing up and down.

448. What length of chain do you give?—I should give about 45 feet, or according to low-water depth.

449. That would be plenty for the rise and fall of the tide?—Yes.

450. This line of moorings would extend throughout the Lower Pool?—Yes, both on the north and south sides.

451. Those would be laid down at no expense to the merchant vessels?—No, they should not be subject to any.

452. Is there a great impediment in the channel by the drifting up of lighters and barges?—To a certain extent, but they pass very early in the tide; the coal craft take advantage of the early part of the tide to go up, and this is before vessels of heavy draft of water can come up the river.

Mercurii, 1° die Junii, 1836.

MEMBERS PRESENT.

Mr. Poulett Thomson.	Mr. Alderman Thompson.
Mr. Crawford.	Mr. Fox Maule.
Mr. Angerstein.	Mr. Alsager.

MR. POULETT THOMSON, IN THE CHAIR.

Captain *Frederick Bullock*, R.N., called in; and Examined.

453. *Chairman.*] YOU have been engaged for some time under the orders of the Admiralty, in surveying the rivers Thames and Medway?—I have, for several years.

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454. Will you give the Committee any observations you have to make respecting the shoals or mud-banks in the river Thames?—They are all pointed out on the plans before me; the whole Pool is excavated into holes and hills; the Upper Pool is full of shoals; the Lower Pool is a little better.

455. To what extent does the existence of those shoals in the Upper Pool lessen the draught of water?—From about 12 ft. to 1 ft. 6 in.; some of the shoals run up to 1 ft. 6 in.; the depth under the bottom of vessels in the tiers is 10 or 12 ft. In the Lower Pool there is the Limekiln Shoal, which projects about one-third across the river; that is just below the Limekiln Dock; it is just in the entrance of the Lower Pool; it narrows the navigable waterway considerably. The next is the Whiting Shoal in Limehouse Reach, which extends the whole way across the river, except a very narrow channel, so intricate that it is not navigable; you can only carry eight feet water over the shoal at low-water spring-tides, and consequently large ships can never pass up till half-tide. There is another, a shelf in Greenwich Reach, called Saunders Ness Shelf, on the opposite side to Greenwich. In Blackwall Reach is the Middle Ground, that has no other name; it is of considerable extent, and is also in the way of general navigation. Bugsby's Hole is one of the worst reaches in the river, having an extensive shelf on either side, as well as a middle ground; the one just below Blackwall Point, leading down to Mill Place, and the other extends from Lea River to Hookness, the lower part of the reach. In the upper part of Woolwich Reach there are severally Charlton Shoal, Cooper's Ledge and Ham Shelf, which latter literally extends from Hookness to below Ham Shelf. Forty years ago the passage was to the north shore; that is now entirely shut up, and the deep water is on the south side. Below Woolwich is the Bell Water-gate Shelf. In the upper part of Galleon's Reach is Galleon's Ness Shelf; on the south side it is shelved from the Arsenal to Margaret or Maggot Ness Point. In Barking Reach there is Barking Shelf on the north, a shelf on the south, below Maggot Ness, and Barking Middle in the centre of the river; and at the lower part, connecting with Halfway Reach, on the south, is the Leather Bottle Shoal;

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Shoal; there is a shoal also on the north in Halfway Reach that was caused by a breach in the walls many years ago. Here the river begins to be wider, and the shoals change their character to sea-sand. Those I have mentioned are the principal obstructions to the navigation. I have the shoals all the way down to Sheerness.

456. Mr. *Crawford.*] Having stated the obstructions as they exist to the navigation of the river, will you refer to them in the order in which you consider them important as obstructions to the navigation, and the removal of which would produce the greatest immediate benefit to the navigation?—The first of great importance would be opening a passage over the Whiting Shoal, taking that part of the river where the current is the strongest with the best chance of keeping it clear after it is once opened, to begin with a passage of not less than 400 feet; I should recommend that the whole should be taken away, but that this should be done in the first instance.

457–8. What is the material or soil?—On the upper part there is a concrete, a kind of pudding-stone, which is chert-stone mixed with a cement, that comes perhaps from London; it is as hard on the top as iron, but after that I imagine, if it takes the same character as those we have seen at Blackwall, underneath there is loose gravel, but we had not the means of examining it, as it requires barges properly fitted, and screws to bore through it. The Trinity Board have the means of removing it; and when broken, it comes up in large pieces sometimes of a cwt.

459. *Chairman.*] Have any efforts been made to remove a portion of that shoal of late?—Not to my knowledge.

460. Do you know whether the nature of that shoal is such as to make ballast?—I have no doubt it is underneath; we have an example of that everywhere, where we have touched upon, that underneath there is very good ballast. I reason from analogy; we have found in Woolwich Reach that, after breaking the surface, a portion of it beneath is good for ballast.

461. They do not take up that not fit for ballast?—It might be taken as ballast, as it is clean; the only difficulty is its great weight.

462. Would it be attended with considerable expense to open a passage of 400 feet?—I should think that the opening a passage of 400 feet would not be a great expense; the removal of the whole shoal would be so. The Trinity Board, if they find the materials will do for ballast, will do it at once, for they remove everything which is good for that purpose; they are bound, I believe, by their charter to take away shoals; they are obliged also to supply the shipping with ballast; and as the latter is more immediately pressing, the removal of those shoals, which do not promise to supply proper material, are overlooked, however inconvenient to the navigation.

463. What is the next, in your opinion, the removal of which would afford the greatest measure of present relief?—I would say those in Woolwich Reach (I believe that is the worst in the river). I would first recommend the removal of the edges of the shoals, so as to widen the channels, beginning with the Charlton Shoal; and if they were to remove the incrusted part, it appears to me that the tide might have some operation on the remainder; but while that concrete remains, nothing can be effected by the current. Below are two other shoals, and the Admiralty, who now pay great attention to the subject, and who have lately interposed their authority in preventing projections into the river and obstructions to the navigation, have determined to take off the salient points of those two shoals, so as to give a passage between them; this is a new channel, and was not known on that side till I examined the river. The pilots, as I before observed, went formerly to the north; the deep passage is now on the south; the current has been driven on to the south by the extending shallow on the north. Ham Shelf is the next, only about 400 feet water way; it proceeds from the north shore, and leaves between it and the ships in ordinary at Woolwich; I should recommend the salient point of this also to be taken off.

464. Mr. *Angerstein.*] Will the instruments which the Trinity House use remove the hard surface at the top?—The buckets they use are often injured by the hard shelves; but in taking away the Blackwall Lock they used another instrument which opened the surface, and then lifted the shoal. In Barking Reach they have taken more than 1,000,000 of tons of ballast, some years ago, as the deputy master informed me, that opened a passage which has, however,

however, only 10 feet 6 inches at low-water, so that large ships have still to wait till half-tide, and thereby risk getting up in time to enter the docks.

465. *Chairman.*] Have they ceased working in Barking Reach?—They have not worked there of late; it is, I believe, because the dumb craft they employ cannot reach the shipping during the flood, they are so far removed from the Pool.

466. Mr. *Crawford.*] It is too expensive to go for it?—I believe that is the case; they have told me when those barges are sometimes heavily laden they cannot get up with the tide, and lose their opportunity of delivering their ballast.

467. *Chairman.*] What would be necessary in your opinion to be done with Limekiln Shoal?—To take from that also the salient point. There are two or three shoal spots close below it, which have been washed from the shoal.

468. You do not consider that so important?—I should think it desirable to have them removed; those shoal spots form the salient point of Limekiln Shoal; as there is only the difference of a foot or two of water between one and the other, they may be considered therefore as projections from it.

469. What is the substance of that?—I think it is a hard substance, at least portions of it.

470. The reason that is not taken away probably is, because it is not good ballast?—I cannot answer that question.

471. What would you propose with respect to Saunders Ness, in Greenwich Reach Shelf?—To remove the outer edge of it; it is hard like the others, but I cannot say how deep that goes down; it is encrusted like the rest, but whenever it is mixed with mud the Trinity Board will not remove it. I was called on by the Admiralty to inquire of the Trinity Board, and they said that if the Admiralty would provide barges to take away the unsaleable material they would take up any shoal; but that they had no funds to raise or any place to deposit this unsaleable stuff.

472. They did not consider themselves authorized or compelled to do it?—No, certainly not.

473. Are those shoals, which may not afford ballast easily, and are not taken up therefore by the Trinity House, removed by anybody, or left to remain?—They are never touched; I believe the Trinity Board consider the whole bottom of the river Thames the property of the Trinity House, and that no person can remove them without their permission; I know the Government pay for that we are now taking up to make our concrete walls, and at the rate of (I think) 1*s.* a ton.

474. Mr. *Angerstein.*] Would it not be a great benefit to navigation, if all the residuum, taken from the bottom, were thrown on the fore-shore, so as to contract the channel?—No doubt it would.

475. Why should not the Trinity Board do that?—I suppose because it would not pay them; it would be a great advantage if the fore-land were taken in, so long as it did not extend the projecting points.

476. *Chairman.*] If those inequalities, in the bed of the river where the current is strongest, were removed, and such a channel set apart for the navigation, would the stream of the current preserve the depth of water?—Yes, as all inequalities in tidal rivers, whether at the sides or in the centre, produce eddies, and deposits and shoals are the invariable consequences of eddies; they always produce an undulating motion, and thus operate more widely than can be, at first, imagined in filling up and contracting the water-way.

477. Is it, in your opinion, advisable that that part of the river where the current sets the strongest should be made the channel?—Certainly.

478. You are acquainted, of course, with the place in which the colliers lie in the Pool?—I am, perfectly.

479. Is that a part of the river where the current sets strong?—Both ebb and flood do impinge on the north shore, and they are placed exactly in the way of the best part of the navigable stream.

480. How would you propose to remedy that?—It has been recommended, and I would propose the remedy of a collier dock; there is no better than to remove them out of the river; but as they must remain a certain time before the docks are prepared, it would be advisable in that case to lay down moorings for them, for lying, as they do, at their own anchors, they never can be kept steady; they sheer with the tide and range with the wind, and with a strong

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strong north wind they will fall to leeward and encroach upon that portion of the stream set aside for the navigation.

481. Have you seen any other plan for the better disposition of them?—I have seen a plan, forwarded to me by Sir John Hall, but here they are still moored by their own anchors, though he has not allowed them to encroach upon the 300 feet space; but if good moorings were laid down, they would not then fall to leeward with a northerly wind.

482. In your opinion, one of the most important improvements would be, supposing the colliers could not be removed altogether, to have moorings laid down for them?—Undoubtedly; to keep them steady, and within limits.

483. Putting moorings out of the question, would the distribution you have seen in the plan be better than the present?—Undoutedly; but lately, as I have understood, the lord mayor has insisted upon the preservation of the 300 feet; before that we had, sometimes, only 150, and, I believe, I have measured it less than 120; they did not think at all of preserving the 300 feet, and they multiplied the colliers in the Pool to the inconvenience of the public.

484. Is it your opinion that 300 feet would be a sufficiency for a passage?—I have always advocated a space of not less than 300 feet, not because I believed that was sufficient, but because it was the only space that could be afforded by the number of colliers necessary for the wants of the port.

485. Suppose there were mooring-chains, as you propose, would it be possible to afford more space?—It would accommodate more colliers without at all interfering with the 300 feet. I know it will be argued before this Committee, as it was before the port committee of the city of London, that it is possible to navigate with a less space than 300 feet, that is, 250 feet; I acknowledge this possibility, for it has been achieved with less than 250; but, I maintain, the possibility of navigating the Thames is not sufficient. The facility of nautical manœuvres ought also to be attended to. Whatever causes difficulty or delay in such a river must be regarded as a grievance, in a country whose prosperity so much depends upon the freedom of its maritime approach.

486. Mr. *Crawford*.] For the purposes of safe and convenient navigation, you consider 300 feet the least quantity that ought to be allowed?—Yes; the possibility of navigating with less is another thing.

487. *Chairman*.] Are you acquainted with the present system of management of the port of London by the port committee?—Not particularly, except it relates to the state of the Pool, which is always in a very bad state; but this I attributed chiefly to the error (from whatever source) of mooring too many colliers abreast in the Lower Pool, and so contracting the water-way. I have no doubt there are instances in which the blocking up the Pool has been out of the control of the harbour-master, or any one else.

488. The remedy you would suggest, as the best, is the removal of the colliers altogether, and as the next best, the placing of mooring chains?—Certainly, that would remedy the inconvenience for the present; I imagine it would not be of material consequence how many colliers were placed in the tiers, so long as the 300 feet water-way was preserved.

489. With reference to the shoals, are the Committee to understand that they are continually increasing?—From what I am able to judge, from the examination of old plans, there is only one thing to be said against this opinion, that we do not know exactly the standard by which their soundings were reduced. They say they have taken those soundings at certain spring-tides; now we know one spring-tide will differ three or four feet from another spring-tide; and there is the difficulty. My order from the Admiralty was to leave a fixed standard, so that any one who came after me could know, within an inch or two, whether they had increased; but my opinion is, nevertheless, that they have increased; and however the depth of the channel is maintained, the increase of the mud-banks on the sides is apparent. I find, at Cuckold's Point, there is, in 33 or 34 years, an increase of 150 feet. I also met an old waterman, of 84 years of age, at Union Stairs; he told me he recollected, in his boyhood, the chain where he moored his boat, and he took me 150 or 175 feet from my low-water mark, and he said, "I will tell you how it appears to me these things occur. We put down material or gravel to make good the hardway, and raise it above the level of the mud; in the course of a few years the deposit settles, and rises again to the top of the hardway; and as they imagine the gravel is sinking, they again heap it up, and every year they put more gravel,

gravel, till they raise the hard above the mud, and so on alternately the mud rises;" so that in 1830 his mark or chain was 175 feet from low-water mark, and not less than four feet above its level.

490. You consider it very important that some power should be exercised by the Trinity House, or somebody else, to remove those shoals?—Certainly, and at the sides of the river also; if this goes on century after century, without the use of artificial means, the river will be filled up entirely.

491. Mr. *Alsager.*] Do not you imagine that the manner in which the tiers are moored tends to keep the current open, in consequence of there being a current under the ships?—I should say that tidal-rivers are not improved by laying tiers of vessels in them. It is an erroneous opinion to suppose that tiers of shipping improve a river; it is true that the river is deepened immediately under the vessels; but unfortunately the particles thus excavated by the force of the tide are again deposited the moment that force ceases, and this is immediately under the bows or sterns of the vessels moored in tiers; the river therefore, instead of being improved, is much injured by the inequalities thus created.

492. What is the chief deposit of the river generally?—Mud, and in places in which I could force my spear down, five, six or seven feet.

493. Suppose it were incumbent on the Trinity House, or any other body, to remove this material, what would you suggest they should do with it?—A part of that in the Pool is very useful for manure, but at any rate the sides of the river could be filled up with it; the foreland would be very usefully raised.

494. What do you call the foreland?—A projection of land which has not been walled in; it sometimes runs out 400 or 500 feet, and bounds the river at neap-tides, but is flowed over at spring-tides; and they are marked throughout in all my charts with a darker shade.

495. You would confine the river in breadth, so as to obtain a deeper channel?—I would fill up all those forelands, which would not have the tendency to injure the river; some of these are four feet perpendicular, and is a kind of peat or vegetable production.

496. Would not there be a deposit outside that to narrow the river still more?—It would be very likely that this would be the case; deposits must be going on in the river continually.

497. Mr. *Angerstein.*] Have not the shoals been much increased in consequence of the steam navigation coming very near the sides of the river?—They have washed from one part of the shore to the other; but I cannot say how far the shoals may be affected by them. The foreland appears to mediffierent from the bed of the river; it is a kind of peat; it is very dangerous to interfere with the course of nature in a navigable river; it must be only undertaken after mature deliberation.

498. Are you acquainted with the state of steam navigation in the river?—I commanded one of His Majesty's steam-vessels two years, and was much in the river Thames.

499. Are you of opinion the velocity of steam-boats may be regulated with any certainty, so as to determine the speed with which a vessel is going?—Certainly not, in the present state of the engine. I was ordered by the Admiralty to make some experiments, to ascertain whether the speed of the steamers could be regulated by the index of the throttle-valve, and Sir Charles Adam was on the same experiment; it was a total failure. The index was set to half speed, and the vessel went at within one mile of the whole speed; she was going nine knots at whole speed and eight at half speed. We then reduced the pressure, and directed the engineer to go as low as possible. The consequence was very unequal; at one minute we were going four or five miles an hour, the next we had scarcely steerage-way.

500. Is it your opinion that it would be possible, by any indicator, to check the speed of steam-vessels in the river, with a view to prevent accidents?—No, it would be impossible with any precision; I mean with the present throttle-valve. You can check the speed by throwing off the steam, but if you do that to any extent it will be throwing the vessel out of the control or power of the captain.

501. Have you turned your attention to the means of preventing accidents from the great speed of steam-boats in the river?—I think the rules for the regulation of steamers in the river ought to be few and simple; I have drawn up a few, which I will read with the permission of the Committee; but in presenting them

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them I beg to state I am of opinion that the blame is very often unjustly thrown upon the steamers. I sympathize with them, because I have experienced their difficulties; I think it would be impolitic to reduce them to the same speed as a dull sailing-vessel.

502. There is a point at which you think their out-speed should be checked?—Yes.

503. Would you not recommend that should be at the lower point of the Isle of Dogs?—That is very narrow, and often dangerous.

504. The steamers do not check their speed till they pass Deptford; you would recommend that it should be done earlier to prevent accidents?—The necessity of regulating them is certainly obvious; but I think the prevention of accidents in the river could be attained by proper regulations for the anchorage of vessels in every part of the river, enforced by Act of Parliament, and by removing the impediments which lie in their way, and to which want of regulation many of the accidents which occur may be attributed. It is to me surprising, considering the numerous difficulties arising out of this confusion, that accidents are not more frequent. I consider that pilots, masters of vessels, and of steam-vessels in particular, are entitled to commendation for the skill with which their vessels are conducted under circumstances of so much difficulty.

[*The regulations proposed by the Witness were read, as follows:*]

"Regulations of the River Thames.

Ships stopping tide. "1. All ships or vessels stopping tide in the river to be placed at the sides, by marks on the land, and on no account to be permitted to take up a position in the strength of the stream, or in the way of the general navigation.

Sailing-vessels. "2. Sailing-vessels, with respect to each other, to maintain the established lawful regulation; viz. ships on the starboard tack to keep the wind, while those on the opposite or larboard tack to bear up and go to leeward. With respect to steamers and with a leading wind, to be governed by the same laws as steamers.

Steam-vessels. "3. All steamers, if in doubt, to pass astern of sailing-vessels which may be crossing their course, and to pass on the —— side of each other (as may be determined by the committee) and of the sailing-vessel with a leading wind.

Boats and Barges. "Boats or barges without sails proceeding with the tide, to navigate outside the tiers or vessels stopping tide, but within the steamer or sailing-vessel; that is, always between the vessels at anchor and those in motion.

Without sails. "Boats or barges without sails going against the tide, to row within the tiers or vessels stopping tide, where a clear passage of not less than 50 feet is to be kept for that purpose.

With sails. "Boats or barges with sails preferring the centre of the river, to be governed by the same laws as sailing-vessels.

"*Frederick Bullock*, Commander R. N., Maritime Surveyor."

505. Do you think no regulation could be adopted by which an effectual control could be placed over the speed of those boats in coming up?—They certainly may require regulation, but I think there would be very great difficulty in effecting it. If you lower the speed to any extent, the captain will lose a portion of his control over his vessel; but it will be difficult to place them under decided rules, as the responsibility must still remain with the captain; and to him must at last be left the discretion to use means to avoid danger.

506. Supposing it were advisable to reduce their speed to a certain given amount, would it be possible to do it?—It would be possible to reduce their speed, but not to a certain number of knots an hour; the captain calls out half-speed; the engineer obeys, and puts the throttle-valve at the half-speed mark; but the effect is, as I have before stated. There are occasions also in which a captain may avoid a danger by throwing his vessel at once to full speed; and when we consider the nature and variety of the difficulties they have to contend with, I am of opinion you cannot subject them to any fixed datum.

507. It has been suggested that there should be stations established along the river at certain distances, by which it might be ascertained how rapidly the steam-boats were going, and that if they were found to go too quickly, they should be exposed to informations in the same way as the drivers of public conveyances are subject; do you think that would be practicable?—No, not practicable. I commanded a steamer in the river two years; I was always in some scrape, although I was always on one paddle-box myself, and the master on the other; and, as an instance that accidents occur in spite of all care, I must state, that I once came up the river in the Admiralty steamer with the Lords of the Admiralty;

Admiralty; there were 14 pairs of eyes on the look out, and yet were unable to get through the mass of colliers moored irregularly in Galleon's Reach, and ran on board one of them, doing considerable damage; but had these vessels been obliged to anchor at the sides instead of the centre of the river, this would not have happened. Captain *F. Bullock*, R.N. 1 June 1836.

508. Is there no way of avoiding this by putting the helmsman forward?—Yes, the helmsman could then see his way, and anticipate the order of the captain; there would be an advantage by placing the helmsman forward in a conspicuous situation, instead of aft, where there are a thousand things to distract and blind him.

509. You think it would be a great improvement to compel the steam-boats to have their wheel carried forward in river navigation?—Yes, I do; and there can be no difficulty, nor would it lead to any great expense.

510. With respect to showing the night-signal by steam-boats coming up and down the river, what is the signal you would suggest as the best?—I should recommend that those vessels going up the river should bear one light at the starboard yard-arm, and two vertically on the larboard; the three lights then will demonstrate a ship going up the river; a vessel going down the river will have simply a light at each yard-arm; the difference would be a sufficient indication of the approach of the steam-vessel; her departure would be of no consequence; but I would recommend also, that there should be one brilliant red light at the cut-water for the sake of boats, that they should see the centre of the ship approaching and avoid the danger; that if they will be so headstrong as to run across a steamer's course, which they often do, they should have some chance of escape.

511. Mr. *Angerstein.*] Would it be possible to moor vessels so as to throw the current across the river at all, by way of clearing the river, so as to make it scour itself?—I think not; nor do I think anything can be done without artificial means to remove those shoals; I have no doubt that after they have been opened, especially if they are composed of what I believe they are, they will generally be kept free by the strength of the tide.

512. Mr. *Alsager.*] Is it not your opinion that the speed of steam-vessels should be restricted, from the time of passing Blackwall?—If the Committee should determine to reduce the speed of steam-vessels, certainly that is the point, as there the river begins to narrow; and from thence to the London Bridge there are masses of shipping, and constant liability to accidents.

513. Mr. *Angerstein.*] Whatever labour is undertaken with a view to clearing the course of the river, should it be commenced at the upper part or the lower?—At the upper part, decidedly.

514. Will not the obstruction be more likely to recur in consequence of not beginning from the lower point?—I think not.

Edward Tickner, Esq., called in; and Examined.

515. HAVE you filled the office of chairman of the navigation and port of London committee?—I have for two years, 1832 and 1833. *E. Tickner*, Esq.

516. Be good enough to state the constitution of the port of London committee?—In describing the constitution of the port of London committee, I describe the constitution of all the standing committees of the corporation of London; they consist of a certain number of aldermen and one of the common council for each ward of the city, and as some of the wards are divided, there are, in fact, 30 wards, consequently the port of London committee consists of 30 commoners, as they are called, and 16 aldermen, a number, in my opinion, much too large. The members of the committee are taken by rotation, not by selection, and the rotation is upon this principle; each ward, namely, the common council for each ward, nominates a member that is to be upon the committee, and he is the senior member, not having an appointment upon other committees. These nominations are subject to the approval of the Court of Common Council, but the court never interferes except in the case of a dispute; so that in fact he is taken altogether upon a system of rotation, without reference to his fitness for the appointment, which is for four years, and having served for that time, he cannot be upon the same committee again while there is a junior member of his ward who has not been upon that committee; so that it very rarely indeed occurs, that a man has the opportunity of giving a committee

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mittee the benefit of his experience, acquired during the four years of former services, carried into a second appointment. One-fourth part of the committee go out every year, and make place for the introduction of the like number of new members, and it is the practice, with very few exceptions, to select the chairman from among the fourth part that are on their last year. The constitution, however, is, that the lord mayor or an alderman is the chairman of all committees of the corporation of London; but the lord mayor and aldermen have so many other public duties to discharge, that they cannot attend to the office of chairman of a committee; hence the practice is, that commoners are the chairmen of committees, and of the port of London committee among others. I think this custom of constituting the committees of the corporation of London, does not, in so important a committee as that for regulating the port of London, work altogether well, because the gentlemen who constitute that committee are not selected in consideration of their fitness, but altogether upon a system of rotation, and hence it is a mere chance whether they are fit or not. The same inconvenience operates with regard to the chairman, upon whom very important duties devolve; the chairman has the whole detail of business to attend to, and is resorted to every day, and many times every day; in fact, the chief burthen of affairs very materially rests upon him; and as it is the practice to select the chairman from that portion of the committee who are on their last year of service, there are not more than eight or ten that are considered eligible, and it may, and I believe does, occasionally occur, that there is not one among that number who is really a fit person for so important a duty as that of chairman of the port of London committee. I trust I may be permitted to name an instance of the inconvenience arising from the changing constitution of this committee. During the last year of my service on the port committee, a very elaborate investigation was made at the instance of the Board of Trade, into the state of the port of London, with the view to an improved system of bye-laws, in which the question of the 300 feet width of navigation through the Pools was completely settled, and the report to the Court of Common Council signed by nearly every member, and which, if undisturbed, would, in all probability, have obviated the necessity for the labours of this Honourable Committee; but this question, the result of mature inquiry, and the great preponderance of evidence, was opened again by two or three dissentients remaining on the committee, and the new members, who had not heard the evidence, were induced to agree to a contrary conclusion.

517. Is the chairman generally connected with the river business?—That is altogether a matter of chance; the committees being constituted by rotation, there may not be a man upon the whole committee that is practically acquainted with the business of the port of London.

518. What has been the fact of late years with regard to that?—There have been two or three instances during my time, in which men who may be called practical men, as regards the navigation of the river Thames, have been upon that committee, and consequently the more competent to advise the committee; but there has been this inconvenience resulting from it, that they have been found strongly attached to a particular interest; and they have been so much deferred to on account of their presumed practical knowledge, that the particular interest they may happen to have been attached to has had an undue and predominant influence upon the deliberations of the committee.

519. Who is the present chairman?—He is a gentleman of the name of Bridge.

520. What is his business?—I think he is an importer and dealer in spruce.

521. Who was the last chairman?—Mr. Peacock.

522. In what business was he engaged?—A baker; but a very strong-minded and practically-clever man; whatever business he applies his mind to, he is efficient in the discharge of it.

523. Who was the chairman of the committee in 1834?—Mr. Hunter, an upholsterer. All these gentlemen are much esteemed in the corporation, and are respectable and able men.

524. Will you state to the Committee the mode of transacting business which is adopted by the port of London committee; have they periodical meetings?—Yes; their regular times for meeting are the first Thursday in every month, and if pressing occasion should require it, they meet oftener; but a vast deal of the business is referred to a sub-committee; indeed, almost every

every application is treated *ad referendum*, and referred to the sub-committee, who examine and report from time to time their proceedings, subject to the allowance or disallowance of the whole committee.

525. How is the sub-committee composed?—That is appointed also by rotation, not by selection; a third part of the members present is taken by rotation, as a sub-committee for the current month; at the next monthly meeting they are superseded in the same manner by those who follow on the list.

526. So that the sub-committee is constantly changing?—Yes.

527. Are the sub-committee or the committee itself assisted by any professional advice?—They have the harbour-masters and water-bailiff, also a surveyor and clerk of the works, attached to the committee.

528. Who names the harbour-masters?—The lord mayor of London.

529. Are they annually named, or for life?—The appointment is during good behaviour, namely, for life.

530. What are the emoluments attached to the office of harbour-master?—There are four; the salary of the first is 500*l.* per annum; the second, 400*l.*; the third, 350*l.*; and the fourth, 300*l.*

531–2. What is the nature of the business which generally comes before you, as regards the port of London?—It partly arises from the reports of the harbour-masters, the surveyor and superintendent of moorings; also from applications made by individuals for a great variety of accommodations, such as moorings, dolphin piles, platforms from wharfs, &c.

533. Are the harbour-masters bound to make periodical returns?—They are bound by the bye-laws to make periodical reports.

534. Of what do they consist?—They consist of a statement of the number of ships that have arrived, the general state of the port, and any incidents that may have arisen of a nature sufficiently important to take the advice and direction of the committee upon.

535. In this statement of the number of ships that have arrived, and their stations, do they state how many ships they have allowed to remain in one tier?—No, I do not believe that they do that particularly; they state generally the gross number, but not particularly how they have arranged them.

536. Is there no control kept over the harbour-masters by the port of London committee in that respect?—Certainly there is no efficient control in this respect, for unfortunately it happens that the law does not give the committee the power either to suspend or discharge either of the harbour-masters for any relaxation or omission in any part of their duty; nor do I believe it gives that power to the lord mayor who appoints them, but it is in the board of the Trinity House; and in case any dereliction of duty is proved, I think the law is imperative upon that board to certify that the harbour-master should be discharged, and that it is also imperative on the lord mayor.

537. Would the course to be followed be this, that a report should be made by the port of London committee to the Trinity House that the harbour-masters did not do their duty?—That would be the course, the only course, in which a harbour-master could be discharged, by his being reported to the corporation of the elder brethren of the Trinity House by the port committee, or by any one else.

538. During the time you were on the port of London committee were there complaints preferred by individuals engaged in any trade regarding the want of accommodation in the Pool, or the conduct of the harbour-masters in stationing too many vessels?—I can scarcely recollect a complaint of the want of accommodation in the Pool; but the complaints of tiers in the collier pools being overloaded with too large a number of ships, and consequently the navigation obstructed, to the great inconvenience and injury of other trades, were incessant and numerous.

539. What was done upon those complaints?—So far as I can speak with reference to my time, peremptory orders were always made by the committee that the harbour-masters should strictly enforce the regulations of the bye-laws, and not presume to exercise any discretion at all; and that if the enforcement of the letter of the bye-laws operated to the injury of any trade, that such trade should make a representation of the inconvenience which they might feel, to be judged of by the committee. These preremptory orders produced a result of which I will take the liberty of informing the Committee. The entrances to the London and St. Katherine Docks, giving a right to those openings of a

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radius of, I think, 600 feet, had removed several tiers of colliers from places where they had been before accommodated; but as the bye-laws had not provided for the removal of so many collier ships consequent on the entrances being made into the docks, this literal enforcement of the bye-laws reduced the number of colliers in the Lower Pool to about 120, which produced very serious inconvenience to the coal trade; and a deputation came to me, urgently representing that they were sustaining great injury thereby. The matter was so pressing as not to admit of time for calling the committee together, and therefore I sent instantly for the two senior harbour-masters to meet the gentlemen of the coal trade at the town-clerk's office, and there we had upon the table a chart of the river upon a large scale, with the soundings. We inquired of the harbour-masters present what was the average width of a tier of colliers per ship, and they informed us it was 20 feet; upon that datum, and upon this information, that the average width of colliers was 20 feet only, we made quite a new arrangement of tiering the colliers, and those tiers which had been removed by the entrances to the docks were put over to the south shore and other places. The Trinity House Board very promptly assisted us in removing mud-banks to make a sufficient depth of water for this new arrangement. This was done merely as an experiment, and for the time it gave complete satisfaction. The bye-law enacted by the port committee, when it had the business of the port only to manage, and a very able man its chairman for two years, namely, Mr. Routh, was, that a passage for navigation of not less than 300 feet was essentially necessary as a paramount consideration in the port of London. I had also an experience of two years as chairman, during which time, after a very elaborate investigation, it was also resolved that a passage of 300 feet at least should be maintained; the temporary arrangement of which I have just spoken, was subsequently approved of by the committee; but the effect of it was to reduce the width of the navigation at some points to 200 feet. The harbour-masters make a great deal of this, and they will seek to involve me in an inconsistency, for they have a document in my hand-writing made out in the town-clerk's office at that time, which appears to be at variance with my decided opinion, that 300 feet is the least which ought to be maintained; but I was led into that by false data on the part of the harbour-masters. I got the best information within my reach of the average width of the collier ships from the senior harbour-master, and he informed me it was 20 feet. I have since quite satisfied myself that it is 25 feet at least; taking for the shearing and the fenders that must be used to prevent collision and chafing, it cannot be taken safely at less than 26 feet; so that the error I fell into at that time was from having false data furnished to me, which I conceive I am not responsible for having taken the best means I could of obtaining information. However, from all I have observed, and for many years I have been much upon the river, and without pretending to a practical acquaintance with the subject, merely exercising my ordinary common sense, I am most decidedly of opinion that as a paramount consideration a passage for navigation of not less than 300 feet ought to be maintained in the port of London.

540. When did you discover you had been deceived in the width of those colliers by the harbour-masters; was it while you were still a member of the port committee?—No; it has been brought to my knowledge since I have been superseded in that committee.

541. Did you not make any complaint of the conduct of the harbour-master, in having thus deceived his superiors?—They may themselves have been mistaken; and as I had passed over to another committee, I had ceased to feel that interest in the matter which I should have felt had I remained upon the port committee. I would add, that as a man cannot be in the port of London committee, as now constituted, more than four years, he can scarcely, with the other avocations that men engaged in trade in London have to attend to, acquire, even at the end of four years, a sufficient knowledge of the business to be efficient in the management of such an important concern as the regulation of the port of London is. I can say that at the end of my three years, after I had been one year the chairman of the committee and had the principal business to attend to, I did not then feel myself competent; and it was only towards the close of my fourth year, and the second year of my chairmanship, that I had the presumption to think I had just become in some degree efficient. The time, however, had then nearly arrived that I was to be superseded. These frequent

changes

changes I think very injurious to the proper management of such important public business.

542. You stated that as soon as those complaints were made to you on the part of the trade, that the channel was not sufficiently wide, you took measures for enforcing a passage, as you supposed, of 300 feet; did you receive, after that, fresh complaints of your orders being infringed?—Not for some time; not until the execution of those orders had been in some degree relaxed. We then heard of new complaints. The arrangement was, while strictly enforced, much approved of; indeed, on going up and down the river, I found every one satisfied with the state of the Pools.

543. Is it your opinion that the control exercised by the port of London committee over the harbour-masters is sufficient?—Certainly not, it is very inefficient indeed; the harbour-masters feel themselves nearly independent of the committee, and what is perhaps as bad, if not worse, independent of each other; they consider themselves to have a distinct and separate power; and though the committee has repeatedly ordered, and with all the authority it could exercise, that the senior harbour-master should have the supreme control, and the other three should implicitly obey him, we have never been able satisfactorily to effect that which has been always felt most necessary for the proper management of the river, that one should have the supreme control and the others be subordinate to his orders, and that one only should be responsible to the committee.

544. How are the different duties of the harbour-masters assigned to them, are the different parts of the river assigned to their inspection?—No, their business commences at the first hour of flood and terminates after the first hour of ebb-tide; one takes the duty in the upper station, namely, the placing the ships in the tiers, and the other, the duty in the lower station, in directing them how to proceed up the river; so that there are two harbour-masters on duty out of the four at the same time, one above and the other below; the other two are consequently relieved at that time.

545. Are those duties assigned to them specially by the port of London committee, or is it a part of the arrangement among themselves?—It is a part of the regulations of the bye-laws.

546. In fact, each harbour-master is, nominally at least, responsible to the committee for a particular district?—Yes.

547. Is their duty one tide off and one tide on?—Yes.

548. Mr. *Alsager.*] From whence do the harbour-masters derive their salary?—From the tonnage duties.

549. By whom are they paid?—They are paid by warrants of the committee on the chamberlain of London; he obtains the money from the Treasury by a memorial of the committee, and the accounts are annually rendered to Parliament.

550. Mr. *Angerstein.*] What actually constitutes the port of London?—The harbour regulations extend from London Bridge to a place below Blackwall, called Bugsby's Hole, but there is now a necessity for the regulations to extend much lower; the immense increase of the coal trade is such, that the ships are lying in different places nearly all the way to Gravesend, and they are brought up in such situations as to obstruct the navigation; there is consequently a necessity for a regulation much below Bugsby's Hole. My opinion is decidedly that a strong necessity exists for collier docks, and that on both sides of the river; the consumption of coal, by the increase of population and being used for gas and steam-engines, and in the production of almost every article of luxury or necessity, has grown to such an enormous extent as to cause very serious obstruction to the navigation of the river, and a consequent injury to all other trades in the port of London. I believe I may safely affirm that the average annual increase is 2½ per cent., and that upon the annual accumulation; so that if it goes on at this rate, and I can see no reason why it should retrograde or be stationary, in 25 years from this very day, the delivery of coal in the port of London will be doubled, which it will be quite impossible to effect in the stream; and hence a very strong case is presented for collier docks.

551. Have you acquired any information as to the best situation for collier docks?—No, I have not particularly, but I think there should be one on each side of the river.

552. Mr. *Alsager.*] There are no funds attached to the navigation committee?—To

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—To the port of London committee there are none, the tonnage dues are paid to the Treasury, and nothing but the salaries of officers and necessary current expenses are charged to that account.

553. Have the chairman or members of the committee any salary?—No, the corporation of the city of London apportion them 500*l.* a year for their expenses; there is not a farthing of this charged to the tonnage duty account. A great variety of business arises every month, making it necessary for views to be taken from Staines down to Yantlet Creek; this duty gives rise to expenses for refreshments and other things, but that is paid by the corporation of London, and limited to 500*l.* a year, and I did not find it enough when I was chairman.

554. Is the state of the river in respect of shoals ever reported to you?—The surveyor of the port of London reports upon this subject to the committee, and that is a matter of very serious importance indeed.

555. Are any steps taken in consequence of that report?—The committee have no funds at their disposal for such purposes, they have therefore been constrained to have recourse to the elder brethren of the Trinity House to do that, there being a doubt, as the law exists, whether the tonnage duties can be legally appropriated to the removal of shoals in the port of London; and I think it is very desirable that Parliament should clear away that doubt, and make those duties applicable to such highly desirable purposes.

556. Mr. Alderman *Thompson.*] You conceive the tonnage duties would be very properly applied in the removal of those shoals?—I cannot consider anything more equitable.

557. During the time you were a member of the port committee, did you make any application to the Trinity Board with respect to the removal of shoals?—Several times.

558. What was the answer returned?—The answer generally returned was that unless the shoals consisted of materials that could be available for ballast they could not help us; but the Trinity Board have, in some instances, stepped out of their usual course, particularly on the south side of the river, where there is now a tier of colliers, which was on the north side, where the entrance to one of the docks now is. I believe they incurred a considerable expense there; also just below the new London Bridge, where a very dangerous bank existed.

559. You found the Trinity Board desirous of giving every accommodation as far as they could legally do it?—Certainly, there was the greatest possible readiness to do it, and that with the utmost promptitude.

560. It would hardly come within your contemplation what could be done with material not fit for ballast?—That is a very puzzling consideration; to throw it into the stream again is very injurious, it will be sure to deposit itself somewhere else. The Committee are aware the tonnage duties of the port of London are reduced to very considerably less than they recently were; I believe they yielded at one time about 48,000*l.* a year. The cost of the City Canal was to be sustained by those duties, and other improvements in the port of London, by which a considerable debt had been incurred, and the law kept up those tonnage duties until the whole debt was paid off. Thus the passing generation were charged with the burthen of the improvements that were to operate down to posterity; but now the Act has been altered to throw the charge over a longer period of time, so as to make after generations have to pay for improvements they will have the benefit of. The present amount of the tonnage duties is only one-sixth of what it was, and is calculated to meet all the present expenses towards establishing a sinking fund, beyond which, I believe, there is a surplus accumulating which it will be for Parliament to dispose of, and I think it cannot be better appropriated than by removing the shoals, and otherwise improving the port.

561. Would you include putting down proper moorings?—Anything that would improve the navigation of the river.

562. Mr. *Crawford.*] You think the means for removing obstructions and improving the navigation of the Thames, ought to be provided for out of the tonnage duties?—Yes, and there is a surplus at the present time, which might be made applicable to such a purpose.

563. Mr. Alderman *Thompson.*] Has anything occurred to your mind in respect of a more efficient plan for the management and superintendence of the

the port of London?—I have thought much of it; and having observed so much of the inconvenience arising from the four harbour-masters exercising a sort of independent authority of each other, and the desirableness of one being invested with the whole responsibility to the public, and the others made subordinate to and responsible only to him, that an alteration upon this principle would be a great improvement. By what authority the principal harbour-master should be appointed and made responsible to, I will not take upon me to say; but, however, and by whom appointed, he should be invested with the superior command, and to which all the others should be subordinate.

564. Mr. *Alsager.*] Would you increase the number of harbour-masters?—No; I think four quite enough for the duty.

565. Mr. Alderman *Thompson.*] You think the station of the chief harbour-master ought to be considerably above the station of the other three harbour-masters?—I think so.

566. You think he should be the commanding officer?—Yes, that is just what I mean, and that the others should be bound to obey him as much as the inferior officers in His Majesty's service are to obey their superior.

567. Do you think difficulty has arisen from the committee not having practical knowledge of the mooring of ships, and their not having sufficient control and authority over the harbour-masters?—Yes; and I think the harbour-masters are, in consequence of that circumstance, (knowing that those gentlemen are not practically acquainted,) induced to treat their authority with less respect than they otherwise would. I should, however, have very great doubt (for the reason I have before stated) about appointing a committee upon the consideration of practical knowledge. I think it would be exceedingly difficult to get an impartial committee of such men, so as justly to balance the interest of all concerned. It is remarkable that there are scarcely two interests in the port of London that are the same; for instance, the docks below the Pool have an interest opposed to those above, and *vice versâ*; the wharfingers and ware-house-keepers on the water-side have an interest opposed to the docks altogether; the lightermen have an interest also opposed to the docks, and they are strongly opposed to steam navigation; and I can scarcely find any two interests upon the river but what are strongly in collision with each other; consequently in selecting practical men there would be a danger of a majority predominating for a particular interest. Those gentlemen constituting a committee of the corporation of London, although not practically acquainted so much as it is desirable they should be, have not this bias of which I am afraid, and to the extent of their judgment, I believe they are an impartial tribunal. If practical men could be found quite clear of a predilection for particular interests they would be to be preferred certainly.

568. Mr. *Angerstein.*] Would you put the Thames police under the same authority?—That is a matter I have not considered.

569. Mr. Alderman *Thompson.*] Do not you think one great cause of the crowded state of the river arises from the harbour-masters not having authority to immediately remove the position of a ship which is inconveniently placed, so as to keep open a sufficient space for the transit of ships?—There is no doubt of its being desirable that they should have that more prompt and summary power.

570. Mr. *Crawford.*] Are they not backward in the exercise of the powers which they now have where infractions of the bye-laws exist?—They complain of not having sufficient summary power; they are obliged to give 12 hours' notice; during that 12 hours very serious obstructions may remain, and very great mischief arise.

571. Mr. Alderman *Thompson.*] By the present law they must give the captain of the ship notice, and he may keep his ship in the same position 12 hours?—Yes.

572. You consider that attended with a great evil?—Undoubtedly.

573. In case of non-compliance he must then go before the lord mayor with the complaint, so that there may be 24 hours before the obstruction could be removed?—Just so.

574. Mr. *Crawford.*] Have you seen the plan for the alteration in the mode of berthing the colliers, proposed by Sir John Hall?—I have.

575. Do you think from your experience that would be a practical improvement?—I do decidedly; I do not mean the plan for placing all the colliers

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over on the south shore; this which is now proposed would be an improvement on the present regulations.

576. It would be a still greater improvement if there were moorings laid down for them in those berths?—Those moorings would mark out the extend the tiers could possibly be brought to, and a great accommodation for the mooring of ships, but the lightermen and watermen have made objections to those moorings, as being dangerous to their craft.

577. That improved berthing of colliers is the next best remedy to the collier dock, and one which might be resorted to without delay?—Certainly, without any delay, and so as not to obstruct and injure other trades. That a free and unobstructed access to all the docks and wharfs on the river, as a first and paramount consideration to which all others must be subordinate, is a self-evident proposition; all property of this description is affected by it; every dock, wharf and warehouse upon the river side is seriously concerned in the question of having a good access to such property or not. I am quite decided that there should be at least 300 feet in width for navigation preserved up to London Bridge. The river Thames is the most important highway in the whole world, and no one trade, however great and valuable, must be permitted to encroach beyond a just limit. The coal trade will probably go on to increase; and whether Parliament enforces the creation of docks or not, a free navigation for the transit of shipping must be maintained, the operation of which will be to force collier docks into existence without the compulsory interference of the Legislature. In the meantime, before docks do exist, coal being one of the most essential necessaries of life, the trade must be provided for in the best way it can; and I conceive the plan lithographed before the Committee, is the best provision which can be made in the interval.

578. Mr. Alderman *Thompson.*] From your experience for four years as a member of the port committee, do you believe that the harbour-masters, if they were to exert themselves and fully to discharge their duty, could maintain a free passage of 300 feet?—Most certainly, and with the law as it at present exists, excepting, of course, accidents, from wind and weather, which no human power can control or foresee.

579. Mr. *Alsager.*] To whom would you make the principal harbour-master amenable?—I would explain what I mean upon this point, by supposing the present principal harbour-master (who is a captain in the navy) to be amenable to the admiral of the port; he certainly would, in such case, not presume to do other than literally obey his orders; I would have the principal harbour-master subject to some such authority, and the others in subjection to him, upon the same system as in His Majesty's service.

580. You think that it should be either the Trinity Board or the Board of Admiralty?—Yes.

581. You would recommend that the superior officer should be liable to be called to an account by some such authority as either the Trinity Board or the Board of Admiralty?—Yes; I know it will be ill-taken in me as a corporator to admit as much; but that is my honest opinion, and I must frankly declare it. I think if the bye-laws which the Act of Parliament authorizes to be made had their origin with such a board as the Trinity House, it would be better than their originating with a committee of the corporation of London; but I would still like to reserve to the corporation of London the right of sanctioning such regulations. The lord mayor is by prescription conservator of the river Thames, and the highest authority in the port of London, the navigation and port committee being in fact his executive government; a state of things I should be sorry to see disturbed. I think whatever regulations are made should be subject to the approbation of the corporation of London, and they should have the control and execution of them; the Trinity Board, or any board of that nature, would be better legislators on the subject than a committee of the corporation can be; but still I would have the corporation the executive.

Lunæ, 6° *die Junii*, 1836.

MEMBERS PRESENT.

Mr. Fox Maule.	The Lord Mayor.
Mr. Alderman Wood.	Mr. Angerstein.
Mr. Crawford.	Mr. Williams.
Captain Alsager.	

MR. FOX MAULE, IN THE CHAIR.

Mr. *Joseph Boy*, called in; and Examined.

582. *Chairman.*] WHAT are you by profession?—A river pilot.

583. Belonging to Gravesend?—Yes.

584. Both upwards and downwards?—Yes.

585. You have had considerable experience in piloting ships in the river, particularly through the Pools?—Yes.

586. How many years have you been a pilot?—Twenty-six.

587. Will you state very shortly to the Committee, for the purpose of leading to your further examination, your observations, during those 26 years, as to the obstructions and impediments that exist in the navigation of the river, especially with regard to the shoals that exist at present?—There is one shoal, what we call Limekiln Shoal, which lies above Limehouse tier; and there is another shoal, just outside low water-mark, at King Edward Stairs, which has not above six feet water in it at spring tides; hardly so much.

588. Mr. *Angerstein.*] Is that a hard shoal or a mud shoal?—A very hard shoal; it is a kind of sugar-loaf shoal.

589. Gravel?—Yes; those are the principal shoals that are now remaining, excepting the regular bed of the river.

590. There are other shoals follow them below?—There are one or two flat shoals, just to the southward of Limehouse tier, in mid-channel. Supposing there was eight ships in Limehouse tier, I consider it about the middle of the channel, off the outside shore, just under the heads of the tiers.

591. Mr. *Crawford.*] What name does that go by?—Only shallow water; it has no particular name; it is just to the southward of Limehouse-hole tier.

592. Captain *Alsager.*] Are those of modern formation?—No, they have been there a good while.

593. The *Lord Mayor.*] Are they gravel?—Not all gravel; bordering on a mudbank.

594. How many years have they been there?—I do not know that they have removed any at all; I have known them five or six years ago; they are about a ship's length.

595. Have you ever made any complaint to the Trinity House?—I did at one time.

596. Do you recollect when?—I cannot recollect when; but since that the ballast lighters have worked on it a great deal; I think they have increased it a great deal by working on it. I am now talking of six years ago.

597. Captain *Alsager.*] What do you mean by increasing?—They have made better water of it; they have increased the water.

598. The *Lord Mayor.*] That shoal near King Edward Stairs you have stated as being hard sand or gravel; have you ever made any complaint to the Trinity House of it?—I have not.

599. Are you aware that any complaints have been made?—No.

600. Is it that sort of shoal that is well adapted for ballast?—That I cannot say; I believe they like particularly good ballast at the Trinity House.

601. In your judgment, would it do for ballast?—I should think it would.

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602. Is it capable of being easily removed, if the ballast men were employed on it?—I should think it is.

603. Mr. *Crawford.*] Is the surface of it very hard?—It is pretty hard; when I say hard, a vessel might go in it two or three feet.

604. *Chairman.*] Is the surface so hard as to break or injure the buckets that are used in getting up the ballast?—No, I should think not.

605. Not so hard as that?—No.

606. Mr. *Crawford.*] Do you think the ballast machines could work without the surface being broken by other instruments?—Yes, it is not like what we call rock.

607. *Chairman.*] Proceed down the river, and name any other particular shoals with which you are acquainted.—There is a little flat water at what we call the Condemned Hole.

608. Captain *Alsager.*] The Trinity House make no difficulty in removing ballast, if it answers their purpose to sell again?—No; they are always at work at different places.

609. *Chairman.*] That shoal to which you allude, the shallow water off Condemned Hole, is there any peculiarity attending it?—It causes a little water for about two or three ships' breadths.

610. Mr. *Angerstein.*] Whereabouts is that?—In Limehouse Reach, just above the King's Arms, on the east shore, and the Condemned Hole on the west shore.

611. Captain *Alsager.*] Off the London Docks there is some formation of shoals that makes it difficult to get ships in?—No; the shoals that are occasionally off there are occasioned by the rushing of the water out at low-water tide; that disturbs the mud, and therefore it is very soft.

612. *Chairman.*] There is no hard substance which is increasing before the entrance of the London Docks?—I should say none; no hard substance.

613. Is there a growing shoal, that you are aware of, before the entrance of St. Katherine's Docks?—They are continually making water there every day.

614. There is a very powerful engine outside St. Katherine's Docks?—Yes.

615. And were it not for the working of that engine the docks would be completely closed?—Yes.

616. Mr. *Crawford.*] That is done by the dock company?—Yes.

617. Mr. *Angerstein.*] Have the shoals in the river within the last 26 years increased?—I should say not, not in any sudden lumps, but the beds of the river have; that is to say, there is less water over the Pool than there used to be 26 years ago. I have known West Indiamen of 17 feet water deliver at Fresh Wharf, which is old London Bridge; it is now dry. In fact, all over the river, from London to Gravesend, where there was good water in many places is now very bad, and where there was no water at all is now very good; I can answer for that.

618. *Chairman.*] Confining yourself to the Pool, what would you give as the general reason for the decrease of the water within the 26 years you have mentioned?—I think the decrease is through the rubbish and dirt coming into the river from the shore, washing down in rainy weather, when everything goes into the river.

619. Mr. *Williams.*] Have you not found the depth of water much diminished at the end of Fresh Wharf?—Yes.

620. What do you attribute as the cause of that?—Very likely the alteration of the bridge might have rolled a great deal of dirt down.

621. Are you aware that the materials of the old London Bridge have been thrown down in that neighbourhood in the river?—Not that I know of.

622. You are not at all acquainted with the fact one way or other?—No; but I think there ought to be a heavy fine on steam-boats throwing their cinders over.

623. The *Lord Mayor.*] Is that a fact within your knowledge, that the commanders or servants of steam-boats do throw their ashes and cinders over?—Yes, I have seen that frequently. In fact, I have often talked of it myself to them about it, saying, that the river in time would be filled up.

624. In your experience of 20 years as pilot, the trade has materially increased?—Yes, very much, particularly the coasting trade; in fact all trade, collieries and everything else.

625. What is your opinion of the general state of the Pool?—For the last six

six weeks I, as a pilot, should not wish to have a better Pool, or better laid out; and if it is laid out as it is now, no man can require a better.

626. *Chairman.*] Explain to the Committee how it is laid out?—Now we have sufficient room. I came up this morning with a ship 178 feet long, the Westminster from New York; I should say that I had two-thirds more than the length of my ship; I should say I had 300 feet to-day.

627. You had 300 feet to-day?—Yes.

628. Mr. *Angerstein.*] You consider that sufficient?—Yes.

629. Mr. *Crawford.*] Previous to those six weeks, was that passage much contracted, much less than the 300 feet?—Yes, I have seen it when the ships could not go up with the yards square. I have seen it at low water not 80 feet.

630. What occasioned the narrowing of the passage to that degree?—By there being too many ships in one tier; that is to say, 18 or 19 ships, or 20 ships, in one tier, and not above two-thirds as many in another tier, and that makes a bad Pool.

631. The obstruction was caused by ships entering which ought not to have been there?—Yes; I have seen five or six ships in a tier more than there were in others.

632. The *Lord Mayor.*] You do not know whether where there were four or five more in some tiers than others, that was contrary to the bye-laws?—I believe there has been a bye-law within these 10 years that there shall only be so many vessels.

633. And you believe there were five or six more than were allowed?—Yes.

634. Mr. *Williams.*] Have you had occasion to count the vessels and the number of the tiers?—Yes.

635. During the whole six weeks can you state the number of ships in the tiers?—I have not counted them. I should say from nine or ten, either head up or head down.

636. Is that the largest number in any one of the tiers?—I believe it is now; I have seen 14 or 15.

637. The *Lord Mayor.*] There are some tiers where there are 18 ships allowed to lie?—Yes, taking them head up and head down. I have seen 14 only one way.

638. Mr. *Williams.*] My question refers to the number altogether in a tier any time during the last six weeks?—I should say that the number altogether during the last six weeks could not be more than 18 or 19 vessels.

639. There were as many as 18 or 19?—Yes.

640. You cannot speak positively?—No; when we do see a good Pool, we are content with it; I should think there could not be more than nine or ten vessels.

641. *Chairman*] It is the harbour-master's duty to regulate the number of the vessels berthed in the tier?—I believe it is.

642. Did you ever see the harbour-master prevented from keeping a vessel out of the tier which had no business there?—Not to my knowledge; at times they are very obstinate.

643. Were you ever aboard a vessel which was moored in a tier contrary to the orders of the harbour-master?—No.

644. You have heard of such a thing?—Yes.

645. Mr. *Williams.*] You have complained to the harbour-master that there were too many ships in a tier?—Yes.

646. Has that been attended to?—They have done all they could directly afterwards; but there are times when the harbour-master cannot prevent the bad Pools, that is to say, a gale of wind may occur and it may blow a ship off, or three or four or five ships may go adrift, that the harbour-master cannot prevent; so long as it is remedied and replaced again, we ought not to complain.

647. That would happen under any circumstances and the best regulations?—Yes.

648. *Chairman.*] Do you conceive if the harbour-masters were attentive to their duty, generally speaking, they could always keep the Pool in a proper state?—Yes, if they got the power.

649. Mr. *Angerstein.*] Are you aware by what authority the better regulation has taken place within the last six weeks?—I do not know where the authority has come from; I consider it has been greatly altered for the best.

650. From the Trinity House, or the corporation?—I do not know.

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651. Mr. *Crawford.*] Do you know whether the lord mayor has sent a peremptory order to the harbour-masters, to keep the 300 feet clear?—No.

652. *Chairman.*] You do not attribute it to the diminution of the coast trade?—Not so much; because by a spirt of wind in the coasting trade, we may have 200 or 300 vessels up in one tide.

653. Mr. *Crawford.*] Do you attribute the improved state of the river to the better arrangements in the Pool, or the accidental circumstance of wind and weather?—It is not from wind or weather; it is from some authority or another.

654. The *Lord Mayor.*] There has been an equally large number of colliers during the last six weeks, as there were during the preceding six weeks?—For what I know; the tiers have been more close together.

655. Are you aware whether the colliers' flag has been up during the whole of the last month, intimating that the Pool was full?—I cannot say for the whole of the month; I have seen it flying at times.

656. Mr. *Crawford.*] Have you seen at all a plan for re-berthing the colliers in the Pool?—Yes, I have seen a plan; it was considered that there ought to be a boundary vessel put to station the tiers.

657. Have you seen that plan [*handing a plan to the Witness*] for altering the berthing?—I have seen it; it is a proposition of my own, years ago, that stationary vessels should be moored, which will keep the colliers where they ought to be, and will keep the room open.

658. Then you are of opinion that the plan which has been projected for altering the berthing of the colliers will be an improvement?—That plan I consider is the best; as far as my opinion goes, I should say no better plan can be laid down, if those vessels are well moored, which they can be.

659. Mr. *Williams.*] During the last six weeks, have you heard any complaints from the masters of coal-vessels, in consequence of a fewer number of vessels being capable of being discharged?—No; I live at Gravesend.

660. Do you come up and down every day?—Sometimes twice or three times a week; but I am not among the captains of colliers or coal-merchants.

661. Mr. *Angerstein.*] On an average, what time do the colliers take to clear their vessels of coals?—I should say about a week; I believe they will clear them in a week.

662. Mr. *Crawford.*] Have you any knowledge on that subject yourself?—Not particularly.

663. You do not know the quantity of chaldrons that is reckoned a fair day's work in delivering?—No, I do not.

664. The *Lord Mayor.*] You stated that the harbour-master has hardly sufficient power?—I say, if they had power.

665. Do you think it would be a very wise regulation, in the event of a captain of a collier mooring his vessel contrary to the bye-laws, that a small fine should be levied on him?—I have said, and, in fact, I have known colliers to lie in Blackwall Reach, 20 sail at a time; 19 out of the 20 shall be conformable to the rules and orders, but there is one in the night time slips away and goes up; my plan was to bring that vessel back, and make it pay every expense, and fine them besides.

666. There is no power of that kind now?—I say, if that could be done.

667. Mr. *Angerstein.*] Is there any limitation to the number of colliers that are allowed to go up the Pool?—No.

668. Any number that arrive go up the Pool?—No; they only go into the Pool agreeable to the number of meters; if they went into the Pool as they liked, they would fill up the Pool. Greenwich is very full of colliers now.

669. If 1,000 colliers were to arrive at the same time, they would let them all go up?—I do not know.

670. Mr. *Crawford.*] This collier flag is flying now, which shows that there is no more room for any more?—Yes, that stops them.

671. *Chairman.*] Would it be much more inconvenient to have some general place, such as a dock for unloading colliers, than to have them all crowding up in the Pool, and coming and going as the berths may be vacant?—If there was a dock for them to go into, it would make a clear Pool.

672. Captain *Alsager.*] Would they prefer it?—I do not know.

673. Mr. *Crawford.*] The one question is with reference to the expense; but as a matter of convenience, without reference to the expense, are you aware of any objection to any ships unloading at a dock?—No, I should think not.

674. *Chairman.*] Has the coal trade in the river been increasing or decreasing

creasing for the last two years?—I should think increasing; I should certainly say so.

675. Very much?—Very much; by the number of vessels, I think it must have increased.

676. Captain *Alsager.*] What are the next class of ships that block the river up next to the colliers; are they timber ships?—The timber ships do not come up the Pool.

677. They come up to Deptford?—Yes, they do.

678. The river is narrow there?—Yes.

679. What is the next class to the colliers?—The coasting trade in general.

680. Not the timber ships?—The timber ships chiefly go into dock, when they can get water; they are lightened as soon as they can.

681. Then they do go into dock?—Some unload altogether at Deptford, but they generally go into dock after they have lightened; they draw so much water when they come in, that they cannot go in; they are obliged to be lightened three or four feet.

682. Are the vessels that are engaged in the coal trade the same as you remember them some years back, or larger?—Nearly the same size; they run about 200 tons, and some larger; many ships in the coal trade are 40 or 50 years old, there are two or three old West Indiamen.

683. The *Lord Mayor.*] Are there not some vessels 400 or 500 tons burthen, which are employed in carrying coals, but in the spring go to Quebec for timber?—We have one ship 500 tons; but I should think you would not find a larger vessel in the coal trade than 350 tons; they vary from 250 to 230, some are 150.

684. *Chairman.*] Now with regard to the Limekiln Dock and the Whiting Shoal, are you aware of the inconvenience that arises from them?—It is all one shoal; it is off Whiting's Wharf.

685. Will you state to the Committee any plan that you could suggest for opening a passage through this shoal?—I think by the ballast lighters continually working on it; they have worked on it a good deal; the Trinity mud-machine has worked there a good deal, and there is a good deal more water than there used to be; but I should say now in low-spring ebbs, there is not above eight or nine feet now.

686. Mr. *Crawford.*] For the purpose of improving the navigation of the river, would you recommend that an endeavour should be made to reduce the shoal all over, or to make a passage through the shoal?—To make it all over.

687. In preference to making a passage through the shoal?—Sometimes you have scant winds, and you cannot get into that channel.

688. Suppose that channel was 400 feet?—It is not that now, the whole shoal altogether; I should not suppose there is above 200 feet shoal-water.

689. Mr. *Angerstein.*] Do you consider that the mooring ships tends to increase the shoals or decrease them?—I should think they rather increase the water by mooring them.

690. Consequently removing the shoals?—Yes; preventing the mud from settling; I think when two ships take the ground at low water, and ground two feet, they cause a run of water like a gutter between each ship; I think it runs the soft mud away; I have always considered, and been taught and thought, that where ships lie is the best water.

691. Captain *Alsager.*] And you do not think that below the tier after the water has washed under the ship's bottom, you do not think that is deposited under the bottom and forms a knoll?—No, I think it runs away.

692. *Chairman.*] During your experience on the river, you have probably made some remarks on the steam navigation in the river?—Yes.

693. What is your opinion with regard to the regulation of the pace of steam-vessels?—What they ought to go?

694. Not what they ought to go, but whether it is possible to bring them to a regulated pace in going through the Pool?—Yes; I do not see why they should go at any dangerous speed.

695. Is it possible to regulate them so that they should go four or five miles an hour?—You see that spring-tides will run sometimes three and a half miles an hour; then they will not have above another half mile to run, if you put them on four miles an hour; to give them steerage-way they must have a little way through the water; if they have not they will come athwart the tiers.

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696. Mr. *Angerstein.*] They go at the rate of ten miles an our now?—Yes, at times.

697. The *Lord Mayor.*] A little more than that?—Yes.

698. *Chairman.*] Could you suggest any manner in which the helmsman of the steam-boats could be placed in the boat so as to see and avoid any coming danger in his own boat or others?—On that point I do not think they can be better conducted than they are at present; they have a bridge that goes athwart, and the master is on the bridge and paddle-box, and he waves and instructs the man at the helm, what the man at the helm cannot see.

699. Would it not save time if the man at the helm were in the same position that the master is?—I do not think he would do it better.

700. If the tiller-rope was altered could he not avoid danger before he received instructions?—I have seen them so on board the tug-boats; if I am looking out well, and tell that man what to do, if he is attentive to my orders, (which, of course, he ought to be, and if he was not I should order him away,) there would be no danger.

701. Then with regard to the steam-boats going up and down at night, would you suggest any plan which should give notice to those who are navigating the river at the same time of the approach of these boats?—I was coming up 18 months ago in a steam-boat, and another coming down, and I said to the master of the vessel, I think that we ought to go the same as carriages, for we are going on wheels and we have got lights, and if I go aground I can get off; I will go, but I will not shift from one side to the other; I consider that ought to be well regulated and understood, just the same as with carriages. Now, that man did alter, and if I had altered as well as him we should have done mischief. I was coming up in the William Fawcett, the Dublin boat; and he said I was right; the master said directly, that is the way it is in Scotland or Ireland, and there have been trials of that kind, that they should keep as carriages; and I consider that should be understood and noticed, as being the way they ought to go if they travel by night at all.

702. Why should not that regulation exist by day as well as by night?—By day you can see everything; then you have no occasion to go near each other; it might be just the same by day as night, if you have got nothing to prevent your doing it; but there may be a ship sailing in the day-time, or two or three, and at night-time there may be nothing but these two steam-boats which have lights.

703. Mr. *Angerstein.*] That would only apply to steam-vessels, not to sailing-vessels?—No; because in sailing, one vessel may be 10 feet water, and another may be 16 or 17; and though it is my right way to go to the side, still I have not got water; I think only steamers ought to attend to that.

704. Mr. *Williams.*] You have very often fogs on the river?—Yes.

705. How would you do in that case?—Bring up, and let go the anchor, because in next tide she could make way again. In fogs, steamers may go at that velocity that they are aboard of an object before they can see it.

706. Have you heard of steam-boats occasioning many accidents on the river?—Yes.

707. Do you attribute those accidents to travelling at too quick a pace?—It has happened so at times, and a great many accidents happen through their obstinacy. I have seen boys, in fact, nine or ten years old and older, when they ought to be in a better place, row into the wash of a steam-boat, in order to have a rock, and if they went under them it would be laid to the fault of the master of that vessel.

708. Do you consider the size of the present wherries below bridge sufficiently large to swim on the swell occasioned by the steam-boats?—No; in the first place, through steam, watermen have got very poor, and they cannot afford a good boat, and 19 boats out of 20 are not fit for a kitten to go in, much more a child, woman, or man; they are actually worn out and rotten, but they cannot get better boats.

709. Mr. *Angerstein.*] Are you not aware that steam-boats when going against tide keep in shore?—Yes.

710. Are you not aware that by so doing they move the mud very considerably?—Yes; they knock up a great swell on the shore.

711. Will not that account for the increase of the shoals in some parts of the river?—It may wash a great deal of mud down, and they do knock up at times a very great swell.

712. The

712. The *Lord Mayor.*] What effect would it have on the river by the removal of the colliers?—If there were no colliers it would give more room, and it would distribute the other vessels which are left in the Pool. We will say, the coasting trade for instance, it would distribute them. In fact, if you take half of the vessels out of the Pool that are in it the Pool must be larger.

713. The object of my question was as to the effect on the navigation, whether the river would remain at the same width or depth of water, whether it would not be likely to silt up?—You might have more room, but it would not make more water.

714. Do you think it would be likely to silt up?—I think where there are no ships riding the bed of the river does increase.

715. Mr. *Williams.*] Do you think there would be an accumulation of mud if there were fewer ships?—Yes.

716. Taking the present trade of London, from your observations and experience, do you not consider a passage of 300 feet sufficient for all the purposes of the trade without inconvenience?—Yes, 300 feet.

717. And if it were increased to 400 feet do you suppose it would afford you equally better accommodation?—Yes.

718. And is necessary for the convenience of the trade?—The more room the better for trade; I think the trade can be well carried on if there is 300 feet kept clear, but to have 250 or 200 feet in one tier and 300 feet all over will not do; but if there is 300 feet left in the Pool, I do not think anybody will have occasion to complain.

719. *Chairman.*] You consider the Pool in a good state when you have room with the largest ship to drive up?—Yes; I drove up to-day with a ship, the Westminster, from New York, and she is about 186 or 187 feet, bowsprit and all.

720. Bowsprit and boom?—From bowsprit to taffrail, I should think we had 120 feet besides her, and that is room enough for my own part. If we have that, that will do. At times we have large vessels, these are the longest ships and they are getting up longer.

721. *Lord Mayor.*] Have you piloted up any of the largest ships that go up to St. Katherine's Docks, for instance, the Lord Hungerford?—Yes, I brought her up.

722. And the Duke of Bedford?—No.

723. Is the Lord Hungerford larger than the Duke of Bedford?—I do not think she will take up more ground.

724. You had no difficulty in navigating her through the Pool with 300 feet?—Not at all.

725. At what period of the tide should you bring her through the Pool?—About an hour before high-water.

726. Mr. *Angerstein.*] Does not the towing of steam-vessels facilitate the navigation of the Pool?—Yes.

727. They are brought up through the Pool by the power of steam?—Yes; there has been a time, I hope we shall never see that time again, that we could not get up on the flood being high-water. We steer better by coming a little against the tide, and if there is only one vessel athwart the Pool, and the Pool is narrow, and vessels cover all that ground, you cannot tow against her, you must wait.

728. The *Lord Mayor.*] After stating to the Committee that this plan was suggested by you, are you of opinion, that if this plan was carried into effect that there is no interest, the interest of the dock companies, the ship-owners, the owners of the coal trade, and that no interest whatever would have cause to complain?—I think not; I do consider that, if mooring craft are put this way and well moored to give 300 feet, no persons will have cause to complain.

729. You have no doubt very attentively observed the Shadwell entrance to the London Docks?—I have.

730. Are you of opinion that the space is unnecessarily large?—It is very large; but then, at times there are four or five ships going in together, and such as bring up, therefore they take a great length.

731. Then I distinctly understand, that if this plan, which was put in before the port of London by Sir John Hall, that if that plan was carried into effect with reference to the mooring of colliers there is no interest connected with the river Thames that would suffer?—I think not; if the boundary vessels were well moored, and 300 feet of ground taken, on my own part, I think nobody would have occasion to complain.

732. Mr. *Crawford.*] Supposing there was 300 feet in the Pool, you, as a pilot, would not find any difficulty in the execution of your duty?—Not at all.

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733. Mr. *Angerstein.*] Do you think the navigation of the Thames is interrupted below the Pool by the mooring of vessels, and where?—We find it, at this present time, very narrow by the number of vessels lying at Greenwich; what we call lying moored at single anchor, when it blows hard southerly, they tail off, and they are equally bad there as in the Pool.

734. And in those parts lower down?—Yes, in other parts.

735. Mr. *Crawford.*] They rise in consequence of the colliers being compelled to stop there, there being no room to unload in the Pool?—Yes; but if those vessels formed tiers while they laid there in the room, and taking up that space of ground to swing, it would be a great deal better.

736. Then it is your opinion, that if the coal trade is carried on in the way it is now, it will be as necessary to moor the colliers below the Pool, as they do now in the Pool?—Yes.

737. Mr. *Angerstein.*] How far down the river should you apply that principle?—When there are heavy fleets of colliers, which I have seen, there ought to be one or two tiers at Blackwall, one or two at Greenwich, and one or two at the Red House; they might put from 60 to 100 colliers there, and not impede the navigation by laying them in tiers.

738. The *Lord Mayor.*] Are you aware that, by a recent Act of Parliament, the Deptford Pier Company claim a free passage opposite their pier of 250 feet?—I have heard they claim something; I have heard it within this week; there is no other place you can lay a ship drawing 20 feet water but there; and ships must go where there is proper water for them.

Mr. *Edward Pashley*, called in; and Examined.

Mr. *Edw. Pashley.*

739. *Chairman.*] YOU are a pilot of the port of London?—Yes.

740. You have had considerable experience in piloting ships down the river?—Yes.

741. Will you state to the Committee any observations which you have made as to the obstructions that exist in the navigation of the river, especially in the Lower Pool?—The obstructions that I meet with are from the colliers in the Lower Pool, they being badly moored, and too many vessels in a tier; indeed, the vessels are so badly moored that we find sometimes nine, ten, or twelve vessels in one tier and twenty in another; if they were better moored, so as to leave a passage of 300 feet, I should not find the difficulty I have at present in getting the ships down.

742. Mr. *Crawford.*] Have you ever seen the plan that is proposed for the better mooring of them?—Yes.

743. Is that the plan that you have seen with Sir John Hall's name?—I have seen that; that plan is abandoned.

744. Mr. *Angerstein.*] Has any alteration taken place within a short time in mooring vessels in the Pool?—The Pool is much better the last six weeks.

745. From what cause?—The vessels are better moored.

746. To what authority do you attribute that?—I do not know.

747. Mr. *Crawford.*] During the last six weeks the vessels have been better moored?—Yes.

748. And the Pool kept clear?—Yes.

749. Has the Pool been sufficiently clear?—Yes.

750. Mr. *Williams.*] What is the clear passage?—From the distance I have seen, as near as possible, the 300 feet has been kept; the time I have been on it, I am only speaking of that.

751. *Chairman.*] The number of vessels in the Pool have been much the same as usual, but much better arranged?—Yes.

752. Mr. *Angerstein.*] Are the same individuals the harbour-masters?—The same; I do not believe there has been any alteration.

753. Mr. *Fox Maule.*] In short, it is your opinion that the harbour-masters have attended better to their duty within the last six weeks than previously, within your knowledge?—I am convinced so.

754. Mr. *Williams.*] When you have found the Pool crowded have you complained to the harbour-masters?—No, not to any particular authorities; a party of pilots made a memorial to Sir John Hall, hoping something might be taken in hand; we did not know who to apply to; the vessels were badly moored. The harbour-masters, I think, had not sufficient power; several times I had been in difficulty,

difficulty, and I pointed out the vessels; they said they had not power to remove those vessels without 12 hours' notice, or 24 hours' notice.

755. Are you aware that that was the fact, beyond the statement of the harbour-master?—Yes, I am convinced they had no power to remove a single vessel.

756. Mr. *Angerstein.*] Is it your opinion that the mooring vessels tends to the improvement of the depth of water, or to its injury?—The vessels rather improve the depth of water than injure it.

757. Captain *Alsager.*] You do not think after the water goes under the vessel's bottom there is a deposit?—No; the tide takes it away.

758. *Chairman.*] You say 300 feet is a sufficient breadth to maintain in the Pool?—Yes.

759. Have you ever seen the Pool in any very narrow or compressed state?—I have gone through the Pool when there has not been more than 70 feet in width, with a ship of 32 feet beam; the harbour-master saw me at the time; there was not room for more than two ships to go through; I was obliged to lie by to permit a ship to come up that was sailing; I was towing down by steam; I was obliged to lie by to let that vessel come through the narrow pass; there was not more than 70 feet at the time.

760. Mr. *Williams.*] Was the river calm at the time?—There was a fresh wind, not a heavy gale of wind.

761. *Chairman.*] Nothing to drive the trade into the Pool?—No.

762. Mr. *Crawford.*] To what do you attribute your obstruction at that time?—To the vessels being badly moored.

763. Mr. *Williams.*] Or too many in a tier?—I had not an opportunity of counting the vessels; but there were too many in a tier, and they were badly moored.

764. Mr. *Angerstein.*] You have stated that the depth of water in the river is improved by mooring the ships?—By vessels lying in the river; I would not say whether lying by moorings or anchors; a vessel lying in the river will produce more water.

765. If it does produce more water, the tendency of it is to increase the depth of the water?—Yes.

766. If a regulation was made that the moorings should be placed on the shoals, would not that tend to improve the shoals?—You could not moor a vessel over those shoals, because it would injure the vessel too much.

767. Mr. *Williams.*] Supposing the Pool were cleared of vessels, compared with its present quantity, to a considerable extent, do you think that that would have the effect of increasing or diminishing the accumulation of mud?—It would make so little difference to vessels, because the bed of the river is very little altered; I have been 25 years on the river, and I find where there is a run of water there is very little difference in the depth; where there is a slack tide under the point, what we call a counter tide, there will be a deposit of mud, and it will gather there.

768. Mr. *Angerstein.*] Has it ever struck your mind that there was a more improved method of cleaning the river than that which is now in practice at the Trinity House?—The vessels that are employed, they do not clear the channel; they go to a shoal, and they work away a certain time on the shoal, but they do not remove that shoal; they go somewhere else; I never saw any particular shoal removed.

769. They just take as much as suits their convenience?—I never saw them to my knowledge directly remove the shoal.

770. *Chairman.*] It is not the habit of the Trinity House to raise anything out of the river which it will not answer its purpose to dispose of?—I cannot answer that.

771. Captain *Alsager.*] Are they very ready, if you remark anything of that kind, to remove any shoal?—We have no authority.

772. Mr. *Williams.*] Do you consider the removal of old London Bridge has produced any depth of water?—I cannot give an opinion on that point.

773. *Chairman.*] You say you have seen a plan of Sir John Hall's; do you think if the system of mooring colliers was carried into effect down the river, that such plan would be convenient?—At Greenwich they are very much in the way; Greenwich is sometimes as bad as the Pool.

774. Mr. *Crawford.*] Then it would be an improvement if they were moored in certain situations?—Yes.

775. Captain *Alsager.*] Suppose there were certain stations appointed below the Pool for colliers to stop at, would it be beneficial to the bed of the river?—Yes.

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776. *Chairman.*] Suppose that certain docks were constructed for the reception of colliers?—It would remove the obstruction altogether; we should have no difficulty in the river if there were a collier dock.

777. And the colliers would not sustain any loss, except from the expense of the dock, in discharging their cargo in docks?—I should say it would be a general benefit to them; for the damage that they sustain now is paid by clubs, but it would be covered by the vessels being in dock; they would meet with no damage.

778. Mr. *Williams.*] As far as the navigation of the port is concerned, you consider the passage of 300 feet quite sufficient for that purpose?—Three hundred feet is a very great convenience to us; but still, in a place like London, where there are so many vessels, any vessel moored is an obstruction, particularly now that large ships come up to the London and St. Katherine's Docks. When I was first on the river there were no large ships as we have now; the West Indiamen were stopped at Blackwall, at the West India Dock; the East Indiamen were stopped at the East India Dock; there were merely a few; but now every tide brings large ships up the river in the Pool.

779. Mr. *Angerstein.*] Do coal barges interrupt the navigation much?—Yes.

780. *Chairman.*] Are you acquainted with the Whiting Shoal?—Yes, in Limehouse Reach.

781. Will you state to the Committee the depth of water upon that shoal, the lowest depth of water that you have met with on that shoal?—I have never met with less than four or five feet; but I have heard of some being low tides, during which it has been dry.

782. With regard to remedying the obstruction it creates, is it your opinion that a passage should be cut through this shoal, or that the shoal should be removed altogether?—I would have it removed altogether; it is possible to do it.

783. Mr. *Crawford.*] Does the shallowness of the water on that shoal prevent your moving with the ships from below, up the river, so soon as you would do if they were removed?—Yes.

784. Captain *Alsager.*] Is the shoal on the north side of the river or the centre of the river?—It is on the north side of the river; it is still in the way, because you cannot at all times place the ships in the position you would wish in the river.

785. Then that shoal is an impediment to the navigation?—Yes.

786. Mr. *Crawford.*] Do you consider that shoal the greatest impediment in the navigation?—Yes, I do, in that part of the river.

787. Mr. *Williams.*] What is the extent of the shoal?—About half over the river.

788. What is the breadth of it?—It does not run out in a regular size, it comes out a narrow spot and gets broader towards the end; I would not say the exact size.

789. Captain *Alsager.*] If that spit was taken away it would be sufficient?—Yes.

790. Does it lie across diagonally?—It reaches half across.

791. Mr. *Crawford.*] The spit requires to be removed?—Yes.

792. Mr. *Angerstein.*] What depth of water is on that shoal at low water?—About four or five feet.

793. Captain *Alsager.*] You have known this shoal ever since you have been pilot?—Yes.

794. Has it increased or decreased?—I do not think there is much difference.

795. Mr. *Crawford.*] Do you find that the steam-vessels obstruct you in the navigation of vessels not moved by steam?—Not the slightest; no steam-vessels have ever been in my way; they are so quick in their movements that they are very soon out of the way.

796. Mr. *Angerstein.*] Do you think there is any means of regulating their pace?—An engineer will answer that better than I could.

797. Have they attended at all to the laws and the regulations made with regard to it?—I rather think not.

798. Mr. *Crawford.*] Do you consider that the putting on of their power, under particular circumstances, rather a species of security to themselves than other people?—Yes.

799. And to other vessels?—Yes, at times.

800. Therefore it would be impolitic to restrain them from the exercise of that power in the discretion of the commander?—Yes, it would.

801. *Chairman.*] There is more safety to the public in leaving it to the discretion

discretion of the commander than making any regulation on the subject, supposing such regulations would be effectual?—Yes. Mr. *Edw. Pashle*

802. Mr. *Williams.*] You have heard of many accidents happening there by steam-boats?—Yes. 6 June 1836.

803. Do you think that occasioned by their quick pace?—In some measure, not in others; the boats are so small; the boats are badly constructed; they should be a different form of boat now to what they used to have; the boat is so low, that if they get a number of passengers, a slight swell fills the boat with water.

804. You consider the boats too small for the navigation of the river?—Yes.

805. Mr. *Angerstein.*] Any boat then, of a wherry's dimensions, could not be used?—I think if they would have a better formed boat, one man could navigate with a great deal of safety.

806. That would add very much to the labour of the watermen?—At times it would, when the wind blew strong.

807. Captain *Alsager.*] Is there any objection to steam-boats being always alongside instead of towing them down?—We do it sometimes; we do it according to circumstances.

808. Mr. *Angerstein.*] If captains of steam-vessels had no power of moving, under certain circumstances, at a greater rate than might be regulated, that they should not pass between London and Greenwich in less than a given time, supposing the power found out of regulating their speed, would that be beneficial?—Yes, they could do that, but they must be guided very much by the tide; ebb-tide and flood-tide makes such a wonderful difference.

809. Captain *Alsager.*] Is not their speed now greater than there is any necessity for?—Much; they really go too fast, when there is no occasion for it.

810. Mr. *Crawford.*] You think their speed is unnecessarily great?—Yes.

811. *Chairman.*] In case of fogs on the river, what is your opinion with regard to the course steam-boats should adopt?—Stop altogether; they should not be permitted to navigate in a fog; there is no safety for any one then.

812. In the case of night, after night-fall would you suggest any regu ted means by which steam-boats should navigate the river coming up and going down?—It is very great hazard when they do it on dark nights.

813. Mr. *Angerstein.*] Could any improvement be made in their lights, and what?—They generally now have a light at each yard-arm, to see what side they are going.

814. Mr. *Crawford.*] You have never given that subject any particular consideration?—No.

Mr. *John Walker*, called in; and Examined.

815. *Chairman.*] ARE you a river pilot?—Yes, I am a river and sea pilot. Mr. *John Walke*

816. How many years have you been acquainted with the river as sea pilot?—Forty-one years.

817. What is your opinion as to the state of the river for bringing up and taking down vessels?—The river has been in a bad state for some years past; I have seen it more clear the last five or six weeks than I have seen it for 20 or 30 years.

818. *Chairman.*] To what do you attribute that?—In consequence of there being complaints made against the harbour-masters' not keeping the Pool clear; I attribute the whole of it to the harbour-masters' neglect, in not attending their duty at the proper time.

819. Are you aware of any orders that were issued to the harbour-masters within the last six weeks?—No, I am not.

820. Mr. *Williams.*] Are you aware how many feet of clear water-way there was within the last six weeks?—Three hundred feet from the land to the tier.

821. Do you consider that width quite sufficient for the navigation of the port?—Yes.

822. Mr. *Crawford.*] In the execution of your duty, you would have no fault to find while you had a clear water-way of 300 feet?—No, by no means.

823. To how narrow a state have you, at times, known the Pool to be reduced?—I have seen it within 50 feet from the tiers, but at times I have seen it impeded altogether; the navigation has been completely stopped.

824. When the navigation has been completely stopped, from what cause has that stoppage proceeded?—From so many ships being formed in the tiers, and

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lying so far over to the southward that there was not sufficient room to go clear of the ground; one person is quite aground; another has let go his anchor; so that they have stopped the navigation altogether.

825. Are you speaking of that state of the Pool in ordinary weather?—Yes.

826. Not when the state of the Pool was disturbed by a gale of wind?—I have seen it at times, in calm, when it has been strong spring-tides, when they have had occasion to let go their anchors, because I have counted as many as 26 in one tier and only nine in the other.

827. *Chairman.*] You have seen the plan of Sir John Hall for regulating the tiers?—Yes, I drew a chart of the river to give the 300 feet space between each tier; it was more difficult in consequence of spring-tides and westerly winds; the coal trade have not sufficient cable to hold them.

828. The defective state of their ground-tackle, by which they cannot hold?—When the first fleet of colliers came in the Pool I have known it nine or ten feet deep; when the colliers have been there six weeks there has been 17; they make water; if there is a collier dock, and the colliers kept out of the river, I do not think, in the course of a few years, there would be water to navigate the ships up; I do not think the Trinity could keep the navigation clear.

829. Mr. *Williams.*] If the river were more clear than it is now, you think the consequence would be an accumulation of mud?—Yes, I do; I am aware of it; I am convinced of it.

830. Mr. *Crawford.*] We understood you to say that where ships are moored that makes water?—Yes.

831. Does the effect of mooring ships extend to making water anywhere else in the stream than where they are berthed?—It lessens, from the ships being in the Pool; I have known it frequently when they have been out in contrary winds, the colliers could not keep their distance. When they have first moored the ships, I have seen their anchor-stocks out of water; after they have been there five or six weeks, I have known them to have 16 or 17 feet water, before they would go down to their anchors. Now, we find as soon as ever a fleet of colliers comes in the Pool there is deep water; it is no injury to navigation.

832. Mr. *Angerstein.*] Does the power of the water act immediately under the vessel, or before or beneath it?—Under the vessel; wherever they want water, if they put ships near it, it will clear themselves just the same as ballast-heavers.

833. Mr. *Crawford.*] Will the mooring colliers produce any effect in the fair water-way?—No.

834. They produce more water where they are moored?—Yes.

835. And, by producing more water, it has the effect of removing mud which otherwise would remain?—Yes, I am sure of it.

836. Mr. *Angerstein.*] If you had the clearing of the shoals entrusted to you, should you commence at the lower or upper point?—I should commence at the upper point.

837. Mr. *Crawford.*] To Blackwall or the Red House; at present the colliers waiting to come in are collected at Greenwich and Blackwall?—Yes.

838. Would it be an improvement that they should there be moored in tiers?—Yes.

839. At present they anchor where they please?—Just where they like; they impede the navigation all the way from Long Reach into the Pool.

840. Then it would be a great improvement if they were berthed in the same manner below the Pool as in the Pool?—Yes, I think everybody will be satisfied of that.

841. Mr. *Angerstein.*] You are a sea pilot; how is the navigation at the mouth of the river; improving or getting worse between Gravesend and the Nore?—It keeps much as it was.

842. Mr. *Crawford.*] Have you found much obstruction from the steam-vessels by coming up and down the river?—Of course we have met with obstructions, but what can we do?

843. Do you find that to the extent that is inconvenient, or rendered the charge that you had more responsible to you?—Why, rather more responsible, of course.

844. Have you been put in situations of danger by the navigation of steam-vessels?—I never have myself; I think they would assist me sooner than injure me.

845. Mr. *Williams.*] You have heard of accidents occurring on the river, occasioned by steam-vessels?—Yes.

846. Does that arise from too great a speed?—Too quick a speed; and another thing, there is a number of these steam-boats which draw a great deal of water, and they go away at all times of the tide; and when they go away, those steam-boats, in low water, part perhaps; they shall have four or five feet under them; they draw such a heavy swell as occasions a number of accidents to happen; they leave such a collision after them that frequently accidents happen after the steam-boat is half a mile to the eastward or westward of them.

847. Do you think it desirable to adopt some regulations to slacken the speed of steam-vessels through the Pool?—Yes; there would not be one-third of the accidents happen in that case.

848. Have you directed your attention to any means of regulating the speed?—I think about five miles in the Pool would be quite sufficient.

849. You have not directed your attention to the regulation of the machinery, so as to produce a speed of five miles an hour?—No.

850. Mr. *Crawford.*] Are you of opinion that, generally speaking, steam-vessels go up the river with more speed than is necessary for the ordinary purposes of steam navigation?—Yes, by half.

851. Mr. *Angerstein.*] What do you consider the speed at which they now go at generally?—I think they must go, according to the distance they run, at the rate of twelve knots.

852. Mr. *Crawford.*] That is supposing they are with tide or against it?—Yes, of course.

853. Mr. *Williams.*] So that it is impossible when they are going at that speed that boats can remove out of the way to prevent accidents?—Yes, they cannot; if the boat is coming through the tiers and the steam-boat is coming before the tier, before the boat can get out of the way the steam-boat is on them, because they do not see the steam-boat when they are between the tiers.

854. Mr. *Angerstein.*] Do not you think that swell which you speak of when the steam-boats move at low water is calculated to improve the river?—Not at all; after the agitation when the water settles the mud falls in the same place.

855. Mr. *Crawford.*] Which is the greatest impediment to the navigation, the shoals below the Pool?—Below the Pool; we have a shoal or two in Limehouse Reach; one is called Whiting Shoal, it is a complete bar across the river; and there is another just below the Limehouse Shoal that is a very dangerous shoal; ships drawing 18 or 19 feet water with the neap-tide, provided you do not keep well to the southward, you will not have water at high water.

856. That is to say, you are obliged to remain so much below till the flood, that you are in danger of the flood not carrying you to the docks?—And it is injurious in a neap-tide to remove a heavy ship in consequence of these shoals.

857. Mr. *Williams.*] And you have found that a great impediment in navigation generally?—Yes.

858. How many accidents happen on that shoal?—Not many; some years ago I have known accidents, but lately I have seen it dry; there is no great obstruction; the colliers come out of the Pool most likely when they have not got a score or two score of coals; they will go out of the tier, and down with the anchor in the middle of the river; 23 sail I have counted from the lower tier down to the Limekiln Dock where the shoal is, so that a ship coming up by sail or steam has not got sufficient room to square her yards.

859. Mr. *Crawford.*] Then an effective control over the colliers generally in the river is essentially necessary for the safe navigation?—Yes, it is.

860. Mr. *Williams.*] Do you consider that the mud which was cleared away by the mooring of the ships from the bed of the river in the Pool accumulates again on the shoals?—It accumulates where the ships lay from the east entrance of the London Dock all the way down to Limehouse on both shores.

861. Do you consider the mud which you stated was cleared away by the mooring of the ships is again deposited on those shoals?—It comes on the land, so that you may see it; we always guard against this point, which is called Cuckold's Point; all the scurf that comes from under the tiers rounds itself down about Cuckold's Point, that is a long flat from the land to low water-mark; I may call it 200 or 300 yards.

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862. Mr. *Crawford.*] In your recollection has the mud accumulated largely there, since you have known the river?—It has been much the same for 50 years, to my knowledge.

863. Much increased?—No, not increased.

864. Mr. *Williams.*] Have any steps been taken to lessen that shoal at all?—You cannot; it is the main land; it will go and come.

865. You consider it not practicable to remove that shoal?—No; Whiting Shoal can be cleared, because that is a bar across.

866. The other shoal you speak of is higher up?—Yes; that is the Limekiln Shoal.

867. That is the shallow part of the river?—Yes, it does not come out exactly in the middle of the river; it lies more out of the navigation; it lies under the lee of Limehouse-hole tier; it is hard ground; it has a crust on it; it is not like the scurf; it will not wash away.

868. Do you consider it practicable to remove Whiting Shoal?—Yes.

869. What is the greatest extent of it; how far does it go into the river?—It runs right across the river abreast of the Condemned Hole. At low spring-tides we cannot find more than seven feet water.

870. What is the breadth of it?—Fifty yards; lying from the south-west to the north-east, in the direction that the reach lies, and from the south-east there is about 50 yards, then it crosses the river like a bar; go which way you will you cannot find a channel

871. Are you aware that any portion of the ballast is taken from that shore?—There is no doubt they have worked on it, but I have not seen them at work on it lately.

872. Mr. *Angerstein.*] If that shoal which you describe was removed, do you not conceive it would tend to remove all the obstructions above?—No doubt, because it forms a counter tide, and creates others; and if they were clear the tide would have a free passage, and there would be less water below it. If they were to form a clear tier where there are no ships lie at the Red House, they might put 100 ships and there would be no obstruction, instead of leaving them at Greenwich.

873. Mr. *Williams.*] It is your opinion if this shoal were removed, it would have the tendency to clear the river of mud generally?—Yes.

874. Mr. *Angerstein.*] You stated that it was hardly possible for a rowing-boat to get out of the way of steam-vessels?—When they are coming under the lee of the vessel.

875. But they are very much discontinued?—Yes.

876. They are used to Gravesend?—Yes.

877. But they are daily diminishing?—Yes.

878. Mr. *Williams.*] Have you been in the habit of going up with vessels to Fresh Wharf?—Yes.

879. Have you found a great diminution of water in that neighbourhood?—Yes; we used to have 22 feet water.

880. How much is there now?—Some time ago, within the last six or eight months, there was not above 14 feet.

881. What do you consider that arose from?—This new bridge has made a wonderful difference, because there was not that bore of tide.

882. Are you aware that a great quantity of rubbish from the old bridge was thrown into the river?—Yes, there was.

883. Was that the cause of it?—I should not wonder.

884. Mr. *Angerstein.*] Do you think the piers that are raised in the river tend to impede the navigation?—No, I do not, not any piers; they are out of the way of the navigation altogether.

Mercurii, 8° die Junii, 1836.

MEMBERS PRESENT.

Mr. Fox Maule.	Mr. Warburton.
Mr. Crawford.	The Lord Mayor.
Mr. Angerstein.	Mr. Young.
Mr. Alderman Thompson.	Captain Alsager.
Mr. Alderman Wood.	Mr. Williams.

MR. FOX MAULE, IN THE CHAIR.

Sir *John Hall*, called in; and Examined.

Sir *John Hall.*

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885. The *Lord Mayor.*] YOU have described yourself as the chairman of the committee of steam-packet proprietors and wharfingers; I believe you are also secretary to the St. Katherine dock company?—Yes, I am.

886. Are the St. Katherine dock company materially interested in the present navigation?—Certainly; and jointly with the rest of the public who possess property at the waterside, and are connected with the commercial interests of the port of London, particularly if situated above Limehouse.

887. Have you not, as secretary of the St. Katherine dock company, had several communications with the Board of Trade, and also with the navigation committee of the corporation of London?—None lately with the Board of Trade, several with the port of London Committee. I had renewed communications with the Board of Trade some time ago upon the subject of the shoals and mud-banks in the river, which led to a communication with the Trinity corporation, who on the 24th May 1834, transmitted to the Board of Trade their reasons in writing for declining to remove the shoals and mud-banks in the river; and I recommend the Committee to call for a copy of their report, with a view of placing before them the reasons of the elder brethren of the Trinity corporation for declining to remove those shoals and mud-banks.

888. What is your reason for describing yourself before the Committee as chairman of the committee of steam-packet proprietors, and not as the secretary of the St. Katherine dock company?—Because I appeared before this Committee in the capacity of chairman of that body, they having authorized me to communicate, as their organ, the views, sentiments and opinions they entertained upon this great public question, in addition to those which I possess, and the evidence I had to offer upon the facts of the case.

889. Are you aware there are two directors of the St. Katherine dock company who are members of this Committee?—I am.

890. Mr. Crawford and Mr. Alderman Thompson?—Yes.

891. You have mentioned that you had the honour of being charged with the representations of a great number of the most influential merchants, shipowners and others of London, who signed a petition to the amount of 5,700 signatures?—Yes, I did.

892. Did you prepare that petition?—I did; and communicated upon the subject with a number of the parties who signed that petition, and nearly with all the India houses whose names are affixed, the object of the petition being to point out to the port of London committee the indispensable necessity of preserving a clear waterway of not less than 300 feet for the transit of shipping.

893. Do you know where it lay for signature?—In a variety of places. Sheets with copies of the heads of the petition were presented separately to many of the mercantile houses; and although that petition contained 5,700 signatures, they were obtained within the short period of nine days.

894. Then the Committee are to understand the parties were apprized of the existence of the petition by a circular letter?—No circular letter whatever was sent;

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sent; there was personal application, and the petition lay for signature in the dock-house and elsewhere.

895. By whom was the application made?—By myself in some instances, and by other officers of the dock, and also by parties disconnected with the docks, who felt a deep interest in the question, and by two persons whom I paid for going round with some of the sheets to the waterside and eastern part of the metropolis, taking with them at the same time a copy of the heading of the petition, so that parties might clearly see the object of it.

896. Can you furnish a list of the names of the merchants and shipowners by whom it was signed?—I cannot at the moment, but will do so, of some of the leading houses. The petition was presented to the port of London committee, and they will no doubt readily produce it, which will be more satisfactory than secondary evidence.

[*The following was afterwards put in:*]

List of a few of the Names of the Merchants, Shipowners, Bankers, and others, of London, affixed to the Representation addressed to the Port of London Committee, in 1835, in favour of the preservation of the Passage of not less than 300 Feet in width, for the transit of Shipping.

Astell, Tooke and Thornton, merchants.
Arnold and Woollett, shipowners.
Baring (Brothers) and Co., merchants and shipowners.
Buckles, Bagster and Co., merchants and shipowners.
Barclay (Brothers) and Co., merchants.
Brooks, Robert, shipowner and merchant.
Barber, Neate and Co., shipowners.
Bell and Grant, merchants.
Bettington and Co., merchants.
Brown, R. and B. and Co., merchants.
Boulcott and Cannon, shipowners.
Buchanan, W., shipowner.
Binmer, John, shipowner.
Barnes, F. and Co., shipowners and merchants.
Bishop, Joseph, merchant.
Brown, George, shipowner.
Crawford, Colvin and Co., merchants and shipowners.
Cockerell, Sir C. and Co., merchants and shipowners.
Cox, Heisch and Co., merchants and shipowners.
Campbell, John, merchant and shipowner.
Carstairs, J., shipowner.
Capper (Nephews) and Co., shipowners.
Carfrae, Heideman and Co., shipowners and merchants.
Cohen, Hymen, shipowner and merchant.
Douglas, Anderson and Co., merchants.
Dobree, S. and Sons, merchants.
Duke, Richard, shipowner.
Everett, C. and J. C. and Co., merchants.
Elmslie and Stookes, merchants.
Finlay, Hodgson and Co., merchants.
Farncombe, T., shipowner.
Fletcher, Alexander and Co., merchants and shipowners.
Forster (Brothers) and Co., merchants.
Gore, John and Co., merchants.
Giles, Son and Co., merchants.
Gibbs, A. and Sons, merchants.
Griffiths, N., shipowner.
Gower, A. A. (Nephews) and Co., merchants.
Gardner, Urquhart and Co., shipowners.
Glynn, Mills and Co., bankers.
Gledstanes and Co., merchants and shipowners.
Huth, F. and Co., merchants.
Home, P., shipowner and merchant.
Haviside, T. and Co., shipowners.
Hawes, T. and B. and Co., merchants.
Hall, Thomas, shipowner.
Hawkins, Walter, shipowner.
Head, Thomas, shipowner.
Henry and Given, shipowners.
Hillhouse and Co., shipowners.
Hodgson and Powis, shipowners.
Hutton and Sons, merchants and shipowners.
Heath, Furze and Co., merchants.
Hubbard, John and Co., merchants.
Inglis, Forbes and Co., merchants and shipowners.
Jacob and Sons, shipowners.
Jackson and Sons, shipowners.
Kerr, Niven, merchant and shipowner.
Lyall (Brothers) and Co., merchants and shipowners.
Lubbock, Sir W. J. and Co., merchants and bankers.
Lachlan, Sons and Co., shipowners.
Longridge, Barnett and Co., shipowners.
Litt and Bushby, merchants and shipowners.
Morris, Prevost, and Co., merchants.
Marzette, J. F., shipowner.
Marshall, John, shipowner.
Masson, John, shipowner.
Moens, Dauncey and Co., merchants.
Nicholls, Son and Green, shipowners.
Nockolls, C., shipowner.
Ogilby, W. Law, shipowner.
Price and Gifford, merchants.
Palmers, M'Killop and Co., merchants and shipowners.
Pirie, Alderman John and Co., merchants and shipowners.
Rawson, Norton and Co., merchants and shipowners.
Richardson, T., shipowner and merchant.
Ranking, J. and H., merchants.
Renshaw, J. and Co., merchants and shipowners.
Read, R., shipowner.
Richardson, C., shipowner.
Reay, J. and H., merchants.
Somes, Joseph, shipowner.
Sampson, Batard and Co., merchants.
Smith, Sundins and Co., shipowners.

Sampson and Hooper, shipowners.
Sinclair, A., merchant and shipowner.
Thomson, Bonar and Co., merchants.
Thompson, Forman and Co., merchants and shipowners.
Tomlin, Man and Co., shipowners.
Toulmin, H., shipowner.
Usborne and Co., shipowners.
Ullock, Lancaster and Co., merchants.
Wilson, Wilson and Co., merchants.
Wildes, George and Co., merchants and shipowners.
Wilson, Thomas and Co., merchants.
Weeding, Thomas, merchant and shipowner.
Wilcox and Anderson, shipowners.
Walton, C., shipowner.
Wilkinson, D. and A., shipowners.
Williams, W., shipowner.
Whyte, G., shipowner.

897. Will you undertake to say that one-half of the persons who signed it were either merchants or shipowners?—I never dissected the petition, therefore I will not take on myself to say that they compose half the number; but I do not hesitate to state distinctly, that the petition contains the signatures of a considerable number of the most influential commercial men and shipowners of London.

898. You have stated to the Committee you employed and paid persons to take about these petitions to obtain signatures?—Yes, I did.

899. Do you know whether the persons who were employed took those petitions into the public-houses to be signed?—If the fact be so, I do not know it, and certainly it was not done by my direction.

900. You would be very much astonished if hereafter evidence shall be produced, stating or showing to the Committee that the persons so employed did obtain signatures to those petitions in public-houses?—I certainly should not sanction such a proceeding; but I apprehend that the signature of a man may be taken as a record of his sentiments, no matter where obtained, and it would not diminish the validity of that opinion so testified; whether signed in a public-house, or in a tavern, or in a private dwelling, the truth or principle is not affected; although the practice may be questionable, still it is often done.

901. Mr. *Warburton.*] All numerously-signed petitions require that sort of machinery to obtain signatures; that some person should take on himself to send round the petition, and pay the party for taking it round?—Certainly; it is the universal practice.

902. The *Lord Mayor.*] Were not the memorials from the St. Katherine dock company, and from the wharfingers and others, also prepared by you?—Not of the wharfingers; the memorial which was presented to the court of common council from the St. Katherine dock company, of which I beg leave to put in a copy, was prepared by me under the directions and with the authority of the board of directors.

[The following document was then handed in:]

To the Right Honourable the Lord Mayor, Aldermen and Commons of the City of *London*, in Common Council assembled.

The Memorial of the St. Katherine Dock Company,

Sheweth, That since the year 1798 several Acts of Parliament have passed for rendering more commodious, better regulating and improving the port of London, and a committee has been annually appointed by the court of common council, under the authority of those Acts, for carrying the same into execution.

That the commerce, trade, and navigation of the United Kingdom, and of the port of London in particular, are deeply interested in the preservation of an unobstructed channel in the river Thames, for the safe and convenient transit of shipping.

That the importance of affording increased security and accommodation to merchandize and shipping, and of giving additional effect to the warehousing system, induced the Legislature to grant encouragement to the construction of wet docks and warehouses, enclosed within walls, between Blackwall and the Tower; and the proprietors and occupiers of such docks, and of wharfs and bonding warehouses situated in the city of London and on the banks of the river, (in the construction and fitting of which many millions have been expended,) are all of them materially interested in the removal of impediments to the navigation of the river Thames, and in preserving to the metropolis its commercial intercourse with other parts of the world, as are also the corporation of London, in their character of landlords and receivers of tolls.

That in 1832 your memorialists brought under the especial consideration of the worshipful the port committee the obstructions that existed to the navigation of the river, and also the inefficient manner in which the harbour service was performed.

That representations of a like import were made at the time by the London dock company, and by wharfingers, shipowners and others connected with the commerce and navigation of the port, which representations induced the committee to institute an inquiry

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into the subject matter of complaint, the result of which conclusively established the existence of the grievance, and proved further that it was a growing evil, requiring not only an effective but prompt remedy.

That the port committee proceeded to revise the bye-laws accordingly, and although your memorialists, and others interested in this most important question, have, during upwards of two years, incessantly urged the necessity of giving effect to an amendment of the bye-laws, and the adoption of improved regulations for the management of the harbour service, which were prepared by the committee in 1833, it was not until the 20th of March last that your memorialists were apprized that the port committee (of subsequent appointment) had at length determined upon certain alterations, professedly with a view to removing the grounds of complaint, and of giving effect to the purposes of the Acts before referred to; but to the surprise and disappointment of your memorialists, instead of those alterations proving to be of a remedial character, some of them are obviously calculated to aggravate the difficulties of navigation, it being actually proposed to contract the present navigable channel 50 feet, in direct opposition to the deliberate decision of the committee in 1833, who, after a most attentive and laborious investigation, and conformably with a greatly preponderating body of evidence, determined to adhere to the regulation as now by law established, which provides for a navigable channel of not less than 300 feet, whilst it further appears that it has been recommended to assign certain parts of the river for the mooring of ships in tiers, in such manner and in such numbers as will, if carried into effect, be highly injurious to the general interests of the commerce and navigation of the port.

That within a few hours after your memorialists were apprized of so unexpected and extraordinary a determination, a certificate (copy of which is annexed) was signed by a large proportion of the river pilots, by the dock-masters of the two principal upper docks, and also by several of the proprietors and occupiers of wharfs between Limehouse and London Bridge, declaratory of the necessity of preserving 300 feet width of channel, as provided by law, and objecting to those parts of the river where the current sets the strongest being appropriated for the mooring of ships in tiers, and recommending that such parts ought to be preferably devoted to the purposes of transit, and thus contribute to the security of shipping and increased facility of transport.

That your memorialists immediately and some time previously to the report of the port committee being presented, transmitted to that committee the important document in question, with the view of bringing under their notice an official record of the opinions of practical navigators, experienced public officers and others concerned in the navigation of the port, and requesting that such testimony might receive consideration; but the port committee, contrary to the just expectations of your memorialists, declined to pay attention thereto, stating that they had already communicated with the elder brethren of the Trinity corporation upon the proposal to contract the space of 300 feet now set apart by law for the transit of shipping, and who, as the committee allege, had intimated their approval of such abridgment, and of other alterations in the bye-laws now recommended by the port committee for the sanction of the court.

Your memorialists, however, beg leave respectfully to express their doubts of the accuracy of the impression the port committee have formed of the opinion of the elder brethren upon the matters referred to, and they invite the attention of the court to the fact, that whatever may have been the communications between the port committee and the elder brethren, those communications took place previously to the presentation of the important document before referred to, which it may with confidence be assumed would have been considered deserving of attention by the elder brethren, provided the port committee had thought it right to confer with them thereupon; whilst it is further to be observed that no approval by the elder brethren of the Trinity House in the premises can be legally pronounced until the court of common council shall have first sanctioned the proposed bye-laws, so that any reference to such opinion was premature; and it is also worthy of observation, that your memorialists were not at the time favoured with the slightest intimation of the extraordinary means by which the port committee have proposed to remedy the grievances complained of, but were indebted for a knowledge of the same to a mere accidental circumstance.

Your memorialists are prepared to prove before the committee, if permitted so to do, that the narrowing of the channel for the purposes of navigation as proposed, will be productive of most serious obstruction to the transit of shipping, detrimental to the interests of the commerce, and particularly injurious to the merchants, traders and shipowners of and frequenting the port of London.

See Example, p. 92.

That it will not be possible, without impeding the maritime approach to the port, to moor the number of ships in the tiers named in the proposed bye-laws, nor in the manner suggested by the committee, within the computed space of 20 feet for each ship, (including casualties,) a space which your memorialists believe to have been the room so allotted, although they cannot venture to speak with certainty, inasmuch as the port committee refused to give your memorialists information upon a point in respect of which every person connected with the shipping of the port is so materially interested; whereas, it can be proved that, upon an average, and therefore, for practical purposes, a space in width of 25 feet ought to be allowed for each ship, and would, if the number of vessels proposed to be stationed in some of the tiers be adopted, produce in certain instances an encroachment upon the navigable channel of upwards of 100 feet beyond the space computed by the port committee; and it can further be satisfactorily shown, that certain parts of the river assigned

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signed for the mooring of tiers, and for the number of ships proposed to be moored thereat, will seriously endanger navigation and impede the transit.

That there are, moreover, other defects in the proposed bye-laws and regulations, but as they are of a minor character, and partake more of detail than of principle, your memorialists will not now enlarge upon them, but will be prepared to afford information respecting them before the port committee, if allowed so to do.

Your memorialists cannot conclude this representation without expressing a deep regret that the port committee have been wholly silent upon the subject of the shoals and mud-banks, which contribute in so great a degree to the obstruction of the navigation between Woolwich and the Tower. Your memorialists are aware that doubts are entertained as to whether any competent authorities exist who can be made responsible for the removal of those growing impediments; but conflicting opinions upon so important a question ought not to be permitted to retard the application of a remedy, and your memorialists therefore confidently rely upon the port committee submitting the subject without delay to the early and serious consideration of His Majesty's Government.

Under all the circumstances stated, and considering that the port of London committee have declined to hear your memorialists upon the particular and important points referred to, and have also refused to afford the information requested, or to pay attention to the recorded opinions of the pilots, dock-masters, shipowners, wharfingers and others, as set forth in the certificate submitted to their consideration, "unless the matter be referred back to them," your memorialists pray that the report of the committee may be referred back to them accordingly, for the purpose of further investigation into the important matters in question, so as to afford your memorialists an opportunity of tendering evidence thereupon, and of being heard generally upon the same.

By order of the Board of Directors of the St. Katherine Dock Company,

London, 28 May 1835. *John Hall*, Secretary.

We, the undersigned, licensed river pilots, do hereby certify that it is our decided opinion that, to afford safe and requisite accommodation to shipping navigating the river Thames between Limehouse Reach and the Tower, a channel of not less than 300 feet in width should be reserved for that purpose between the tiers of shipping, or from the outermost ship in any tier (where double tiers are not stationed) to low-water mark, such channel to be preferably kept where the set of the current is the strongest; and we are further of opinion that, under proper regulations, duly enforced, such channel can be kept with every regard to the general accommodation of shipping frequenting the port of London, provided additional power be given to the harbour service to remove forthwith all obstructions.

20 March 1835.

(Signatures)

J. Chippendale.	*Geo. Chandler.*	*Isaac Starbuck.*	*John Bennett.*
John Ferguson.	*Wm. Hedley.*	*Robt. Hughes.*	*Rich. Ross*, sen.
J. H. Dix.	*Ab. Pickering.*	*Thos. Garbutt.*	*Geo. Irvine.*
Wm. Gilbert.	*Wm. Brownfield*, jun.	*John Norfor.*	*J. R. Barrowby.*
Joseph Voy.	*Thos. Brownfield.*	*Wm. Chapman.*	*James Kindred.*
John Gilbert.	*John Walker.*	*Wm. Fothergill.*	*Robt. Rosberry.*
E. Pashley.	*Geo. Reed.*	*Alex. Fothergill.*	*John Pashley.*
Jas. C. Walker.	*John Hughes.*	*Benj. King.*	*Matt. Reid.*
Geo. Johnson.	*Edw. H. Clarence.*	*John Candy.*	*W. Batchelor.*
Edw. Motley.	*Robt. Nicholson.*	*W. Collins.*	*R. D. Ross.*
John Reed.	*Alex. Smith.*	*Wm. Harrison.*	*Mich. Boxer.*
Chas. Foshach.	*John Nevill.*	*Chas. Voy.*	*Thos. Voy.*
Thos. Ross.	*John Phillips.*	*Wm. Kitchner.*	*Thos. Forss.*
Wm. Palmer.	*Thos. A. Duff.*	*John Henderson.*	*Jas. Deane.*
W. J. Osgood.			

We, the undersigned, having perused the above certificate, fully concur in the opinion therein given.

(Signatures)

Francis Walton, Dock-master, } London Docks.
W. K. Maughan, ditto }
Charles S. Compton, Principal Dock-master, } St. Katherine Docks.
James Adams, Deputy Dock-master, }
Joseph Adams, Leith and Glasgow Wharf.
Alexander Thompson, Upper Iron-gate Wharf.
David Wright, Cox's Quay.
F. W. Wright & Co. Iron-gate Wharf.
Joseph Watson, Watson's Wharf.
C. R. Collman, Downe's Wharf.
W. J. Smith, Agent to the Dublin Steam-packet Company, 16, John street, Crutched Friars.
Thomas H. Harrison, Harrison's Wharf.
Charles White, Carron Wharf.
Alexander Mackintosh, per *E. Hore*, Hore's Wharf.

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E. Wright, per *John Duffas & Co*, Aberdeen Steam Company,
Thomas Farncomb, Griffin's Wharf, Southwark.
Richard Wilson & Co. Carpenters, Smith's Wharf.
Griffin & Hillhouse, Beale's Wharf.
Joseph Barber, Chamberlain's Wharf.
James Jenkins, Aberdeen and London Shipping Company.
C. Moreton, Superintendent, *J. Clippingdale*, Wharfinger, St. Katherine's Steam-packet Wharf.

Example:—(referred to in p. 90.)

STATEMENT of the Number of Ships intended to be moored in Tiers on the North Shore in the Lower Pool, according to the proposed Bye-laws; showing the Space each Tier would occupy, 25 Feet being the computed space in width required, practically, for each Ship, which includes an allowance for Tenders, shifting of Ships, and range at their Moorings, Casualties, &c., and providing for one Craft alongside the outermost Ship; showing also the Width of the River at Low-water Mark, and the Width of the Channel that would remain for the purposes of Navigation:—

TIERS.	Number of Ships proposed.	Width of the average Occupation of each Tier, about:	Average Width of Inshore Channel, North Side, about:	Total Width, from Low-water Mark, North Shore, to outermost Ship, about:	Width of River between Low-water Marks, about:	Width of remaining Water-way, or navigable Channel, about:	Encroachments on the 300 feet width of Channel, established by Law, about:
		Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
Cole-stairs - -	22	550	100	650	860	210	90
Bell wharf - -	23	575	100	675	825	150	150
Stone-stairs -	20	500	100	600	750	150	150
Ratcliffe-cross(Upper)	16	400	100	500	700	200	100
Ratcliffe-cross(Lower)	15	375	100	475	695	220	80
Total Number of Ships - - -	96						

The above statement shows the impossibility of mooring the number of ships as proposed without narrowing the channel so as to obstruct the transit of shipping; and to a similar error, and a want of sufficient allowance for space occupied upon an average for the inner channel, the constant encroachment upon the passage of 300 feet may be attributed; and hence the confusion in the Pool. Proper moorings ought to be provided for colliers on the opposite south shore, by which additional accommodation would be afforded, and the stream on the north side appropriated, as it should be, for navigation; a wider passage would thus be secured and kept with comparative ease.

The accompanying plans show what would be the effect, practically, of the regulations recommended by the port committee, and explains also the arrangements suggested by the St. Katharine dock company.

N.B.—Copies of these plans have been laid before the Committee.

903. Are you aware from what quarter the application to the Board of Trade arose for the appointment of this Committee?—It arose with the committee appointed at the public meeting held at the London Tavern, convened by public advertisement, and attended by owners of steam-packets, persons connected with the navigation of the river, shipowners, wharfingers, &c., but to which I was not in any manner a party, having been applied to by the promoters to attend the meeting and take the chair, which I declined. A committee was appointed for the purpose of giving effect to the resolutions, and of making a representation to the Secretary of State for the Home Department, with respect to the necessity of remedial regulations, particularly with relation to steam navigation and preserving a clear waterway. The committee did me the honour to appoint me their chairman, and I attended Lord John Russell, by appointment, with a deputation from the committee, for the purpose of urging upon His Majesty's Government the expediency of recommending the appointment of a Committee of the House of Commons to inquire into the state of the navigation of the river Thames. His Lordship was pleased to entertain that application favourably, and a communication was made from the Secretary of State for the Home Department to the Board of Trade, inasmuch as the object of inquiry embraced the

the points to which I have first alluded, namely, those relating to the shoals and mud-banks, which had previously been under their consideration. I also pressed on Lord John Russell, with the concurrence of the deputation, the expediency of referring the subject to the Board of Trade, inasmuch as it involved questions of such deep importance to the commercial and shipping interests of this port. An official communication from his Lordship was subsequently received, and communicated to the London Tavern committee, stating that his Lordship had acquiesced in their application and suggestion, and that the President of the Board of Trade would undertake the application to Parliament for the appointment of a Committee of inquiry.

904. Did you furnish the President of the Board of Trade with any evidence, or any statement with a view to this inquiry?—I furnished, as the chairman of the committee, the President of the Board of Trade with an abstract of the points to which they were desirous the inquiry should be extended, pointing out the grievances to be remedied, and submitting a list of witnesses the London Tavern committee wished should be summoned to give evidence; but I had no verbal communication with him, directly or indirectly, upon the subject matter of this inquiry.

905. Are you aware there have been some pilots examined before this Committee?—I am; I was authorized by the Committee to send up pilots with a view to their being examined.

906. Are we to understand that those pilots were selected by you, as being in your judgment the better able to give evidence on the subject than any other person?—It was determined in the London Tavern committee that 12 pilots should be sent up, and their names were fixed upon; but in the course of the inquiry, conceiving that a multiplication of evidence of the obstructions, &c. to the waterway, which were so notorious, would be a waste of the time of this Committee, I exercised the discretion that I considered as chairman of the London Tavern committee was vested in me, by arranging the witnesses and selecting three out of the number, considering their evidence to the facts would be sufficient.

907. When you speak of the committee having decided that 12 pilots should be examined, am I to understand that it was the Committee of the House of Commons?—No, the committee which sat at the London Tavern, and of which I am the chairman.

908. Mr. *Angerstein.*] Those three were selected in consequence of their qualification, as being experienced?—Yes, and from the circumstance of their having been examined on the subject before.

909. The *Lord Mayor.*] Have you had communication with those pilots?—Yes, I have; but I gave them no instructions as to what evidence they were to give before the Committee.

910. Mr. *Warburton.*] What is the nature of the communications that passed between you and them?—The nature of the communication that I had with those pilots was merely apprizing them that, at the request of the London Tavern committee, they would be summoned or desired to attend this Committee, for the purpose of stating their opinions of the facts connected with the heads of inquiry that were within their own knowledge, and particularly of the obstructions and impediments that existed in the navigation of the river, and also as to the inefficient manner in which the harbour service of the great port of London was performed, and of the necessity of keeping a waterway of 300 feet in width, to which they had deposed before the navigation and port of London committee upon former occasions.

911. The *Lord Mayor.*] I think you stated, in the statement you delivered in on the 12th of the last month, that there was great excitement with respect to the state of the Pool?—Great excitement with reference to the numerous, and in several instances fatal, accidents that had occurred upon the river Thames; my observation was not confined to the Pools alone.

912. Are you aware of the loss of life in the Pool during the last year?—Returns from the coroner's inquests have been made to this Committee, which will furnish the facts much better than I can state them; but I understand they will show, that not less than 15 lives were lost during the last year by drowning, between Woolwich and London Bridge, exclusive of a number of accidents that occurred, but which fortunately were not attended with fatal consequences.

913. Are you aware what proportion of the 15 were lost in the Pool?—No,

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I am not prepared to state the particulars; they appear in the returns; but the chief portion of those accidents, I am informed, have occurred between Woolwich and London Bridge; I should say, nearly the whole of them.

914. Are you aware that the Pool is but a limited part of the river?—Certainly.

915. You have no means of knowing whether the greater portion or the less proportion of those accidents have occurred in or out of the Pool?—No.

916. But between Woolwich and London Bridge?—Yes. About five years ago I had the misfortune to be swamped in a boat in consequence of the crowded state of the Pool and the waterway being encroached upon, a steam-boat passing up at the time (and there not being sufficient room for her to pass without coming close to the tiers); the accident was not attributable to the misconduct of the captain of the steamer, but entirely to the narrow state of the waterway at the time.

917. Might it not be attributable also to the waterman who might be rowing you at that time coming out between the tiers of the vessels very unexpectedly at the time when the steam-boat was passing?—No; it is the constant practice of persons passing on the river to row between the tiers, for the purpose of crossing the river; and that circumstance shows the greater necessity that exists of the waterway being kept clear; for if a waterway of 300 feet had existed, according to the bye-laws, the accident would not have occurred. The steam-boat that did the injury would in such case have kept more in the centre of the waterway, and there would have been room sufficient for her to pass without hugging the tiers.

918. This occurred solely from there having been at that time seven colliers moored more in the tier than was allowed by the bye-law?—Yes, which diminished the width of passage, and was an illegal encroachment.

919. And this occurred about five years since?—Yes.

920. Had not these accidents which have occurred, of which the return has been made, been occasioned more by the rapid speed of the steam-vessels than from the crowded state of the Pool?—From both. One of the remedial regulations that the committee whom I have the honour to represent propose (and I hope will be adopted as one of the results of this investigation), would establish some control upon the improper velocity of steam-boats after they get into narrow water; say above Greenwich.

921. Are you not aware that during the latter part of last year nearly the whole of those accidents which have occurred, attended unfortunately with loss of life, were entirely owing to the rapid speed of the steam-boats?—I think not; but I cannot speak to that from my own knowledge, because, as I stated before, I am not prepared to say what proportion of those accidents were in the Pool, or may be attributable to the crowded state of the passage; it is however a matter of notoriety, and constantly observed upon in conversation, that the chief part of the accidents (not confined to loss of life only) do arise from the crowded state of the river, and I believe principally in the Pools; and such, also, is the opinion of the principal harbour-master, stated in the papers returned to this Committee.

922. *Chairman.*] Was not the steam-boat from which the accident occurred to you going at an unusually rapid pace?—No.

923. Mr. *Warburton.*] Does not the crowded state of the river render it necessary for the steam-boat occasionally to put on its full speed, in order to avoid obstruction and danger, arising from the crowded state of the Pool?—Assuredly; not only to prevent themselves from getting into danger, but also to avoid doing injury to others.

924. They see the danger, and must put to full speed to avoid it?—I must say, as far as my own observation goes, that such cases are very limited. I have seldom seen any serious injury done to ships by steam-boats; injury is done to small boats principally from the undulation produced by the paddles and resistance of the water to the bow of the steamer; they frequently go at a rate of speed which is not consistent with the security of the public in narrow water, and the velocity should be regulated.

925. Mr. *Warburton.*] That very speed becomes necessary in this narrow water occasionally, in consequence of the crowded state of the Pool?—It does, but it is of a very limited character, perhaps for a distance of 100 or 200 yards, which relieves them from that difficulty at the time; the steamers are quick in their movements, and easily get out of the way.

926. The

926. The *Lord Mayor.*] You have stated to the Committee you are not aware of the proportion of the accidents which have occurred in and out of the Pool?—No, I am not; but you have the return.

927. Mr. *Warburton.*] Would it not be extremely difficult to regulate in all cases by law the velocity of steam-boats, inasmuch as occasionally, in order to avoid danger, they must put themselves to the full of their speed?—I think not, in so far as respects means of limited security. I approve of the exception which Mr. Alderman Wood proposes in the Bill brought in by him (although I object to many of its provisions), by which a power is proposed to be given to the magistrates before whom any informations are heard, to exercise their judgment, and mitigate or remit the penalties, upon proof that the speed beyond what shall be allowed was necessary from the peculiar circumstances in which the steam-boat was placed at the time. The regulation of speed of steam-boats may, in my opinion, to the extent of satisfactory security, and to which the public is entitled, be regulated by the indicator, a plan of which I put in at the time of my examination in chief, and of which a copy is before the Committee. That indicator would be the means, under the regulations suggested, to restrict the speed, although I have stated before, that it will not be practicable to establish with accuracy the half speed of a vessel at all times; it is perfectly impossible; but you may obtain that which approximates the nearest to it by means of the throttle-valve and machinery proposed, which, connected with the indicator fixed upon the deck of the vessel, and regulated by the experiments to be previously tried of her speed with the stream, and against the stream, a mean would be ascertained by which you may then regulate, sufficiently for any practical purpose, a near approach to half speed, which would be shown at the time by the indicator. This arrangement would possess the advantage of furnishing the means to inflict a punishment, by penalty, upon the captain of the vessel who should exceed the speed indicated by the hand upon the index, and which might be seen by every passenger on the deck; such restriction to take effect between Greenwich and London Bridge.

928. Mr. *Angerstein.*] I would ask, whether the best way of regulating the speed of steam-vessels would not be to have a station at Greenwich, or some other place, and then limiting the time at which the vessel should pass from that station to its destination, which would be entirely known to the persons in the vessel?—It is perfectly impossible to regulate the speed in the manner suggested by legislative regulation; and I will explain why. The port of London navigation committee have erected recently, upon the banks of the river, posts to indicate the exact distances from London Bridge to Blackwall and Woolwich, the object of which, I understand, to be with a view that parties may time a steam-vessel in proceeding either upwards or downwards; but it is inoperative, in so far as relates to determining the velocity with which the vessel goes through the water; because if she, for instance, arrives at Greenwich with a flood-tide, and next day arrives against an ebb-tide, the time she is going the distance must necessarily vary and be materially different, inasmuch, also, as the time would be influenced more or less according to whether it was a spring-tide or neap-tide, because the stream runs stronger during spring-tides, and the strength of current varies also materially whether the boat is navigating in slack water or in the set of the tide;—on the other hand, the velocity would depend also on the state in which the steam-boat was as to cargo or passengers, whether she happens to have many or few passengers on board; whether she is loaded to deep-load water-mark, in which case the dip of the paddle is increased, and has more hold of the water, and when the resistance of the water to the bow of the vessel is proportionably increased. Her speed will unavoidably be influenced by these different circumstances, and loaded ships, in precisely the same manner, whether they have on board a full cargo or part of a cargo; the speed will also be influenced by other causes, such as whether she happens to keep (as all steam-boats do as much as they can) in slack water when going against the tide, for when proceeding with the tide they keep in the strength of the stream, to have the advantage of the current; it would therefore be perfectly impossible by stationing, as suggested, a person on shore or on the deck of the vessel to time her, so as to arrive at an accurate knowledge of the fact, to enable any person to give such evidence of the regulation having been violated as to fix the offender with the penalty; no man could take on himself

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himself to swear to the precise velocity or rate of speed that the boat is actually going at. But this may undoubtedly be provided for, by means of the regulations and indicator I have recommended in my first examination, in such manner as will ensure to the public, as near as may be, and for all useful purposes of security, that the steam-boat, when within the limits, shall not be propelled at greater rate than at half speed, or rather, that by means of the throttle-valve a sufficient quantity of steam will be shut off, equal to a diminution of power, so as to lessen her speed one-half.

929. The *Lord Mayor.*] To revert to that which I was upon prior to the turn of cross-examination, you stated to the Committee you were not able to judge as to the proportion of lives which were lost in or out of the Pool?—No.

930. But that you believe, from all you have heard, that the greater portion of those accidents have arisen, not so much from the velocity or of the rapid speed of steam-boats, as from the crowded state of the river?—Yes.

931. Not having seen the return to the House of Commons with reference to those accidents, you would be rather surprised when I inform you, perhaps, that of those accidents which occurred attended with loss of life, two only were lost in the Pool, and 11 out of the Pool, in the year 1835?—Look at this return. The first I put my finger on is, Francis Holmes, boat upset by a steamer, Ratcliffe-cross tier; death from drowning. The next is, 12th June, Luder Nesserer, boat upset by rapid passage of a steam-vessel in Wapping; manslaughter against persons unknown, and a strong expression of the jury against the rapid passage of steam-vessels in the Pool. 15th June, Henry Harland, fall from a barge from the rapid passage of a steam-vessel causing a swell in the water, near Alderman's-stairs; manslaughter. On the 16th June, the following day, another case, Thomas Schleebacker, boat upset by rapid rate of steam-vessels, near Poplar. Then follow two other cases; but here are a variety of other accidents I perceive also, of "found drowned," but no specific statement of their having arisen in the Pool: this might be or might not be. The next case is one of William Gritten, run down by steam-boat, rapid passage, near Poplar; and there are three cases, one following the other; Robert Wall and William Foreman, &c.

932. Do you consider those to be in the Pool?—No, but in a part of the river above Blackwall, and in the narrow water. Upon looking further, I think this return is only Mr. Baker's; he is only one of the coroners; there ought to be returns from four or five others, and from Essex, Kent, Surrey, city of London, and Southwark.

933. Have you at any time submitted to the port of London committee any plans for the purpose of altering the present mode of mooring colliers?—I suggested to them a plan of fixed moorings for the colliers, a copy of which I laid before the Committee of the House of Commons, in the year 1831, and which will be found in the Report and Evidence on Steam Navigation; but there was a difference of opinion on it in the port committee, and I therefore did not press it; for whatever my own opinion on the subject may be, I never wish to be pertinacious. I left it with the port committee to exercise their own judgment upon it. The objections that were made to them were, in my opinion, without foundation.

934. Were not objections made to that plan by other interests, by the wharfingers?—I do not exactly recollect.

935. By parties engaged in the coasting trade and the coal trade?—The coal trade made an objection to it; but colliers now moor by their anchors, so that 20 ships in a tier have 20 anchors down, these plough up the bed of the river, which produces ridges and inequalities that encourage deposit, besides rendering the tiers insecure, and consequently are constantly sheering and ranging, and thus encroach upon the waterway, all which would be avoided by laying down proper moorings.

936. And having made those objections, you withdrew that plan from before the committee?—I no longer pressed the plan, but never altered my opinion of the indispensable necessity of laying down moorings.

937. The objections which were raised by the committee was not to putting moorings down, but merely to the diminished number of colliers that were to be placed in the tiers?—My objection was to the colliers not being provided with fixed moorings, and to which I attributed a considerable portion of the obstruction

obstruction that existed in the Pools. The port committee, upon the advice of the harbour-masters, objected to any fixed moorings.

938. Have you observed the state of the Pool during the last two months?—Yes, I have.

939. Are you of opinion any alteration has taken place in the state of the Pool?—During the last five weeks, and since this Committee has been sitting, a most decided improvement, thus proving the perfect practicability of keeping the waterway clear.

940. You are not, then, aware that other interests have complained of the state of the river, in consequence of the bye-laws being carried rigidly into effect?—I have heard of no such complaint, nor do I conceive there is the slightest foundation for such complaints, if they have been made. On the contrary, from my own observation, having been down the river occasionally during the last few weeks, I can state that the waterway, preserved as it has been, has not been productive of the slightest impediment or diminution of accommodation to any of the shipping in the port of London, but that the keeping of it has been productive of very great benefit to all branches of the trade, in the access to and egress from the port.

941. Do you think the rigid manner in which the bye-laws have been enforced for the last five or six weeks has been of great accommodation and protection to the shipping interest of London?—Certainly.

942. And you have not heard of any shipowner or owner of steam-boats complaining of the bye-laws being carried into effect?—On the contrary, I have heard captains of steam-packets, pilots, shipowners and others, express their high gratification of the improved state in which the Pools have been kept during the last five or six weeks, although I have also heard complaints of the manner in which the Upper Mill-hole tier has been allowed to lie; on Sunday and Monday last the passage to the southward of the tier, inshore, was nearly as wide as the water-way to the northward; in fact, the tier, without the slightest excuse, lay in such an improper manner as to impede the main channel. According to the bye-law, the outermost ships in those tiers ought not to lie more than 300 feet from the south shore, low-water mark.

943. In your recommendation of a collier dock, are you of opinion that the public would obtain coals at an equally low price as they do now?—My impression is that they would obtain them cheaper. In the first place, I am satisfied coal-ships may be discharged in docks at a considerably less rate than the expense now paid for unloading them in the stream. The expense is from 13 *d.* to 14 *d.* per ton, including weighing; and I think that the proprietors of a collier dock, making due provision for a proper return upon investment, could afford to discharge coal-ships, even by manual labour, at two-thirds of the expense paid in the Pool, and if by aid of machinery, at still less. I calculate that 100 tons of coal may be discharged in a day without difficulty by a gang of ten men. At present, under the regulation of the coal-market, or committee of coal-factors, &c., the delivery is confined to 49 tons per day, at the option of the buyer. The whippers are paid about 1¾ *d.* per ton each. If docks were constructed and manual labour still resorted to, from 4 *s.* to 4 *s.* 6 *d.* per day per man would amply compensate, and 100 tons of coals would be discharged by them in about eight hours, at an expense which is not one-half the sum now paid for whipping in the Pools. I am sorry to say that the men who are employed in whipping coals are not the parties who derive the greatest proportion of the advantage from it; publicans and other persons on the waterside near the Pools compel these persons to resort to houses where the gangs are appointed to work the ships, and make them run up a large score, which is deducted out of the money which they earn in whipping the coals.

944. Mr. *Warburton.*] Is there not also to be taken into the account the expenses of ships laying in the Pool, the average of damage which they receive by laying there, and which they would not receive if they were in a dock?—That is a question connected with a tonnage-rate, which I suggest should be charged not higher than 3 *d.* per register ton; and I state distinctly, not only from the evidence which has been given upon the Collier Dock Bill when before the Committee of the House of Commons, and which is therefore upon record, that the actual injury sustained by every collier coming into the Pool each voyage is to an extent of between 4 *l.* and 5 *l.* per ship. Now if the Com-

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mittee recollect that nearly 8,000 colliers entered the port of London last year, 5,000 of which discharged their cargoes of coals in the Pools, multiply the latter by 4 *l.* 10 *s.* per ship, the loss sustained by the owners of those ships, by adhering to the objectionable practice of discharging in the stream, will not be less than 23,000 *l.* per annum.

945. This amount of damage is below the per centage that they can recover from the insurance companies or the clubs?—I am not aware of the nature of the terms of those club insurances; but I have heard, from pretty good authority, that those clubs not only insure these coal-ships against the damage they sustain, but they insure them also against damage they do to others, which renders it of little consequence to the captains of the coal-ships keeping out of the way, and avoiding doing injury to vessels passing up and down the river. If the fact be as stated, it is an advantageous mode of obtaining new spars and rigging.

946. Mr. *Warburton.*] Then are you of opinion, whether they pay it themselves, or whether it is paid for by clubs or insurance companies, they must pay a higher insurance; still, in the long run, either they or the consumer of the coals must pay for it?—The consumer pays for it at last.

947. Are you of opinion, that in the event of coal docks being established, that that expense which you have just adverted to arising from damage would be saved to the shipowner?—That depends upon the charge that would be made by the collier dock proprietors for tonnage-rate. If they should be content with the profit arising from the discharge of a ship laden with coals, and the wharfage, deposit, loading, &c., there would be no charge for tonnage-rate. The saving would in that case be entire to the shipowners; but I apprehend you will not find parties disposed to embark in the project of a collier dock without a compulsory clause, unless they had, and what I conceive they would be perfectly entitled to, a reasonable remuneration in the shape of a tonnage-rate or dockage on the ships. Certainly, 3 *d.* per ton would be less than the amount of the 4 *l.* or 5 *l.* which it is estimated they now sustain from injury and wear and tear each voyage in the Pools.

948. Mr. *Warburton.*] Have you any doubt that the diminished expense of unloading the coals and the average amount of damage together afford a sufficient margin for compensating the projectors of a collier dock?—I think it would leave to them the means of diminishing to the public the expense; and I beg leave to add, that the objections which are understood to exist with the coal trade to collier docks are of a private nature, and cannot be sustained upon any public grounds; for I am prepared to prove that the same accommodation may be given with increased security and despatch in the locking and undocking of craft and ships, if the locks and docks be properly constructed, and, in addition thereto, accelerated despatch in the discharge of the coals, and which would materially contribute to counteract that, which at present operates to the disadvantage of the consumer, from the management exercised by the irresponsible committee of coal-factors and buyers, who regulate the number of tons of coals to be sold at market, and discharged in the Pools per day; a regulation, as I have stated before, which limits the quantity to 49 tons per day—whereas with the greatest ease 100 tons may be discharged per day, in the option of the buyer, 200 tons having been unloaded upon emergencies.

949. Mr. *Angerstein.*] What is the average number of tons that a collier actually carries?—Upon an average, about 300 tons of coals per ship. At present, provided proper means were taken, colliers might be discharged in three days in the Pools, instead of the average of six or seven; and that constitutes one of the great objections to the existing practice, because it converts the ship into a floating warehouse, at the option of the buyer of the coals.

950. Mr. *Warburton.*] There is also the expense of the maintenance of the crew of the ship during that six or seven days?—Yes, for although the wages are paid by the run, these would also experience a diminution if the detention was diminished.

951. Does that six or seven days mentioned by you comprehend the time required for her discharge as well as the time she is detained below for want of room in the Pools?—Taking the whole of the colliers that come into the port of London and discharge in the Pools, seven days (upon the present system) being allowed to each collier, is the average detention in the Pools for discharging and

and taking in ballast. Now the Committee will see, that provided 100 tons per day were discharged (and it could be easily done instead of 49), that the average detention would be reduced 50 per cent., for you would in that case only have a detention of three days, or at most four days per ship, instead of seven.

952. Mr. *Crawford.*] Your detention does not include the detention of a ship waiting down at Blackwall or Greenwich for a berth?—No; it includes only the accommodation necessary for the discharge of the ship's cargo, as the ship ought not to be permitted to come up until her coals are sold; and taking the 5,000 which discharge in the Pools, you will find that 111 colliers is the average per week that have so discharged; but it follows that more are so discharged at one and the same time to form that average. The coal-trade say they will be content with accommodation for working at one time 150 colliers; my plan provides for 163. The maximum has never exceeded 150, whereas the minimum has been 19.

953. Mr. *Williams.*] Are the ships detained, independent of these six or seven days required for their discharge in the Pool, in consequence of want of room at Greenwich, or lower down the river?—Not so much for want of room, as detained for the purpose of the market, and from the peculiar arrangement of the coal committee, before referred to, the nature of which, I understand, is fully exhibited in the returns before this Committee.

954. For the accommodation of the proprietors of the coal?—The regulations of the coal-market and committee determine the number of cargoes of coal to be allowed to be sold per day, and they send down orders for the number to be permitted to come up for the purpose of discharge, which, it is understood, is regulated in a great measure by the state of the market and prices, but never exceeding the number of ships for which weighers can be found: 120 permanent weighers and 30 extra (150 together) is the establishment. These are appointed by the committee of coal-factors, &c., without any legal authority; the weighers give no security for good behaviour or honesty, and enter into no written obligation.

955. Do you not think that the same plan must be acted upon in the event of a dock being established for colliers?—Clearly not; because if a ship should be required to wait for a market, she would proceed into dock, and not interrupt the navigation of the river by being converted into a floating warehouse in the stream; the object of the dock would be to relieve the river from those obstructions and impediments arising from coal-ships lying at anchor below, even as low down as Long Reach, Erith, &c.

956. You do not consider that the price of coals would be increased in consequence of the vessels being placed in the dock, and there being forced to discharge their cargo?—I verily believe they would be reduced, for the reasons I have stated.

957. The *Lord Mayor.*] I understand you to state to the Committee, if collier docks were established, instead of the public having to pay an increased price for coals, you think they would be less?—Decidedly; I have not the least hesitation upon the subject.

958. Mr. *Angerstein.*] Is it your opinion that the mooring ships in the river is a benefit to its navigation? It has been stated before this Committee that in consequence of mooring ships in the river the mud and impediments in the channel are cleared?—That question may be answered in two ways; and I have anticipated the subject in my first examination, to which I beg particularly to refer. It is a vulgar error on the part of many persons, who have imbibed prejudices without proper inquiry, to assert that the river is deepened by such means in any part thereof where the current runs the strongest. I am convinced, from my own observation and experience, that there is no foundation for such opinion. Where ships are moored in tiers and in what is termed slack water, (and tiers of shipping ought not to be moored in any other parts of the river, keeping that part where the current runs the strongest for the waterway navigation,) you there produce by artificial means additional scouring, and the mud that would otherwise deposit in the part of the river under these ships' bottoms is washed away; an advantage therefore is derived from ships being so moored in slack water, but not in places where the current runs the strongest, as in the case of the lower Pool, for instance. The flood and ebb-tides, from the Regent's Canal entrance to the Shadwell entrance

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of the London docks, set the strongest upon the north side of the river, exactly where the colliers are moored; and if they were removed, and the inequalities in the bed of the river displaced, which between every tier is formed into ridges, from those vessels dropping their anchors and ploughing up the ground with them, although they have deep water in the berths where the ships lie, the depth of water would be preserved. Between those tiers ridges are formed; and if you were to remove the tiers where they are now lying, and leave the places unoccupied for any length of time, the existence of those ridges would immediately encourage a deposit, and fill up the trenches; but if the bed of the river was, as it ought to be, without mounds, shoals and inequalities, the current in that part would of itself be sufficient to scour and keep the bed clean and preserve the depth of water. I am prepared to state, with reference to the depths of water in the river, that the soundings in 1791, which are upon the records of Parliament, at the time of inquiries by Committees on the best mode of improving the port of London, prove my position to be correct, as you have less water in the Pools now than you had then, even allowing for the alteration that has taken place since old London Bridge was removed, the tide now ebbing out further than formerly, by which the depth of water at low water is less upon spring-tides nearly 15 inches. Now if it be true, as it has been stated by some persons, that by laying ships in the Pool you get deeper water, why is it that we have less water there now than 40 years ago? But another fact renders the accuracy of my position manifest: the water-way (where no ships lie) on the south side of the Pool never fills up, nor is there any change there in the depth of water. Where the race of the tide runs the strongest you require no artificial aid whatever for scouring the river; it will keep itself clear. There is less water at the buoy off the new entrance of the London dock than there was prior to the removal of the Shadwell-stairs tier, and Captain Manghan, the dock-master of the London docks, adverted to it before the navigation and port of London committee, and he may have done so also upon his examination before this Committee; but that arises from the ridges formed whilst the tier lay there, and to which I have spoken, which afford an inducement for deposit, whilst the bank of the river having been disturbed by the lock entrance, the scouring and sluicing from the London dock entrance has from time to time driven a large quantity of mud into the trenches between those ridges, and in the places therefore where the tiers formerly were stationed you will find less water now than there was, to which must be added the 15 inches of depth reduced by the removal of the old bridge, because if the bed of the river had been smooth, the current in that part running the strongest, both upon the ebb and the flood, the bed of the river would have kept itself clean and clear of any deposit.

959. If it was entrusted to you to clear the river of all the impediments that exist in it, should you commence at the lower or upper end?—As far as the shoals and banks are concerned, I should hope they would all be taken in hand immediately; but I should commence below and work upwards. The sediment put in motion from the removal of the shoals above from time to time would not in that case form any deposit below worthy of notice, if the shoals were there removed and the bed of the river made smooth. There are steam-engines allowed to be used by the corporation of London above bridge, which contribute materially to the increase of the shoals below bridge, as the persons who work them merely select the best of the gravel, and the sieve-spouts or slides, by which the stuff is conveyed into the craft from the buckets, allow the sand and silt to filter through into the river, and which comes down with the ebb-tide and settles on the banks and shoals below London Bridge.

960. The *Lord Mayor.*] Are you not aware that if those steam-engines were not permitted to remove the shoals above bridge, that the river would be perfectly impassable at Waterloo Bridge, except at high water?—The proper remedy is evident. Instead of permitting the dredging-machines to use riddle-shoots or spouts, the stuff they take up should be shot into the craft, and sifted elsewhere. If the spout or shoot which they use was a close one, instead of being open like a sieve or riddle, all the stuff they take up with the buckets would be shot into the craft, and we should have no addition, from those causes, to the shoals and mud-banks below bridge.

961. Mr. *Warburton.*] Are you aware that the sand which they allow to escape through the sieve is precisely of that nature which is daily taken up for the use of bricklayers, and therefore would be an article of consumption?—It is not sufficiently fine for that purpose; it is partly silt and refuse of concrete. If it

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was sand they were dredging, the article they took up would be of advantage, but as part of the concrete, it would not suit their purpose.

962. The *Lord Mayor.*] You have said that, in your opinion, a saving to the public would arise if collier docks were established; have you formed any opinion as to the increased number of lighters that would be required for carrying on the coal-trade of London?—If the collier docks be properly constructed, with suitable locks and entrance basins of sufficient capacity, I am satisfied that no increase whatever of lighters would be necessary. One of the greatest causes of delay in the delivery of coals in the Pools is, that the proprietors of coal-wharfs convert their craft into floating wharfs on the river Thames, and thus cripple their means of discharge. I have myself counted, during the last six weeks, 110 coal-craft moored on the inshore passage between the Shadwell entrance of the London dock and the Regent's Canal, within a distance of about 600 yards lineal, containing about 4,000 tons of coal, part of which had been afloat for a length of time, and obstructing the navigation of the river, impeding the inshore passages and passing of craft and shipping, which is a nuisance, and should be got rid of.

963. Mr. *Warburton.*] Is there no power vested in the navigation committee and the harbour-master to remove that impediment?—Most certainly there is with the harbour-masters, but they do not remove such nuisances; which is another proof of the inefficient way in which they perform their duty. We are indebted to the Lord Mayor for having lately taken up some of these points, and with great effect. I can only say, if his avocations and time would permit it, that a great deal of good might be done by his interference as conservator of the river, and I have no doubt will be done to the extent of his power, as regards the removal of such obstructions, and making the harbour-masters do their duty; but the Lord Mayor, who is the chairman of the port of London committee *de jure* for the time being, and therefore is changeable annually, cannot, from his numerous avocations, devote his attention to the practical details of the port committee, and the duties are therefore confided to a deputy chairman, elected by the committee, who seldom happens to be duly qualified for the situation, from the absence of practical knowledge and experience in shipping. I have been informed, within the last few days, that at the instance of the lord conservator of the river, instructions have been given to the harbour-masters to do night duty by turns, according to the eighth bye-law; a most salutary regulation, hitherto wholly neglected.

964. Mr. *Williams.*] You have stated the river has been much more clear during the last five weeks than it has been before?—Most certainly.

965. Do you attribute that to any additional complaints that have been made to the port of London committees and the harbour-masters?—No; but to the knowledge they possess of a committee having been appointed by the House of Commons to investigate the causes of the obstructions and impediments to navigation, which have been the subject of such loud and constant complaint for the last four years, without any effective redress, and partly from the circumstance I have just referred to, of the Lord Mayor of London having, since the subject was lately brought under the renewed attention of the common council, promised that he would direct his attention to the subject, and make the harbour-masters do their duty and enforce the bye-laws; nor must I omit to notice certain proceedings before the elder brethren of the Trinity House, upon complaint made by the St. Katherine dock company about two months ago, which led to the harbour-masters giving the elder brethren the assurance that they would in future perform their duty and enforce the bye-laws.

966. Do you consider that the port of London committee, of whom the Lord Mayor is chairman, has paid more attention to the state of the river within the last five weeks, than had been previously done during his present mayoralty?—I have no knowledge of the port committee having so done; whatever improvement has taken place has been in consequence of the Lord Mayor having made personal inquiries into the nature of some of those complaints.

967. The Lord Mayor has been now in office six months; has there been more attention paid by the chief magistrate to his duties, as chairman of the port committee, during the last six weeks, than had been paid by him previous to that time?—Most undoubtedly; but the constitution of the committee is such, that the practical working of it is left to a *locum tenens*, a sub-chairman, elected by the committee.

968. There are four harbour-masters?—There are.

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969. Are you aware who has the appointment of those harbour-masters?—The Lord Mayor for the time being, as conservator of the river.

970. Has the port of London committee the power of discharging the harbour-masters, or punishing them for neglect of duty?—No, they possess no such power, which further shows the inefficiency of the supervision;—the Lord Mayor has the power to discharge them, on the certificate of the elder brethren of the Trinity board, when the dismissal is final; they nor his lordship possess power to mitigate the punishment. The Act of Parliament is imperative upon complaint made to the elder brethren of the Trinity corporation for misconduct or neglect of duty on the part of the harbour-masters, and the elder brethren considering the charge to be proved, must certify the fact to the Lord Mayor, who has no discretion, but must dismiss the party peremptorily; and the Act provides that they shall not be capable of serving again. The severity of the punishment has prevented complaints from being made to the elder brethren of the Trinity corporation. I never made but one, and that was about eight weeks ago, on behalf of the St. Katherine Dock Company, in consequence of the navigation and port of London committee having refused to investigate charges of neglect of duty against the harbour-masters, some of which were lodged as far back as September and October last; the result of such complaint led to a promise of improved conduct on the part of those public functionaries, as before referred to.

971. Are you aware how the committee of the common council, called the navigation and the port of London committee, are appointed?—From the information I possess, I understand the committee is formed of 45 members; but I have explained this in my evidence given on the 12th May.

972. Are you aware that any regard whatever is paid in selecting the most competent persons in the common council for such a committee?—To judge of results, I should say decidedly not, as but few members of the committee possess any knowledge whatever of the subject of navigation or the regulation of shipping, and their opinions are generally overruled by the majority, who are not, therefore, competent to form their own conclusions accurately upon such matters, in so far as relates to the business below bridge.

973. Do you consider that the management of the port of London, under such a committee, is a proper mode of management?—Clearly not; the supervision is ineffective; and I am convinced that, until a superintending power is created, which shall, from nautical knowledge, active habits, decision of character, and experience in shipping, be fit to superintend practically the conduct of the harbour-masters, whoever they may be, and be daily afloat, that no remedy will be effectual or proper redress obtained. An officer and seaman of practical knowledge and experience, armed with due authority, to be constantly on the alert to see that the harbour-masters do their duty, is indispensable; it is a description of executive duty which cannot be efficiently or promptly performed by a committee meeting occasionally.

974. Suppose such a superintendent were appointed, do you consider that the control which is now exercised in the port of London committee, if it were continued, would be an advantage or disadvantage?—I should conceive it would be a disadvantage, as not being competent to decide upon questions which must arise from time to time, and which requires practical knowledge of the river, shipping, &c., to determine. My opinion is, it would be expedient to transfer the superintendence to constituted authorities, who, from their habits, possess a knowledge of the subject; and I again recommend, as I have previously done in my former evidence, that the elder brethren of the Trinity corporation should be the originators and framers of the bye-laws, and the superintending power over the officer who shall be appointed to see that the harbour-masters do their duty.

975. You have frequently made complaints of the crowded state of the Pools to the port of London committee?—I am sorry to say, frequently.

976. Did you make those complaints at the general meeting of the committee?—In writing, not only from the dock company, but complaints were also made by others. The dock company abstained for nearly 18 months, in 1833 to 1834, from adding to those complaints, knowing that the subject was under the consideration of the port committee, with the professed object of improving the bye-laws, and believing that the recommendation of the committee, of which Mr. Tickner was the chairman, would have been carried into effect; but, unfortunately, when certain alterations of those bye-laws, by a subsequent committee, made their appearance, it was found they would, in effect, have increased the obstructions complained of, by diminishing the waterway.

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977. The *Lord Mayor.*] You are not aware that before the port of London committee there were a great number of persons examined, wharfingers, ship-owners, and persons in the coal trade, who differ in opinion from you as to the width of the waterway?—There was some difference of opinion in 1832; but the preponderance of the evidence taken before Mr. Tickner's committee, which is three or four years ago, was most decidedly in favour of the preservation of a 300 feet width of waterway; and as respects the evidence given before the Committee last year, it was, with the exception of the harbour-masters, and a few watermen and collier captains, all in favour of the 300 feet.

978. Mr. *Williams.*] Are you aware that a committee of the common council has been appointed to inquire into the obstructions in the port of London within the last three months?—No; petitions have been presented, and were referred to the navigation and port committee, who reported to the court in favour of narrowing the waterway; but from what passed in court since this inquiry was instituted, and when the report was to be considered, it may be inferred that the members then present almost unanimously disapproved thereof, but they came to no decision.

979. Have you not been examined before them?—Yes, before the port committee.

980. How long ago?—In the autumn of last year.

981. You stated the same complaint to that committee as to this with regard to the obstructions?—Yes.

982. Did you find any additional attention being paid to those complaints shortly after that period?—None whatever, and complaints against the harbour-masters were refused to be further inquired into.

983. But you have found since this Committee was appointed, within the last five weeks, a great difference has taken place in the management of the port?—Very considerable improvement has taken place in the management of the Pools and the arrangement of the shipping by the harbour-masters, those impediments being nearly for the present, I should say certainly to a great extent, removed.

984. What has been the width of waterway during the last five weeks, when the Pool has been in the improved state you have mentioned?—From my own observation when upon the river, and what I have heard, I should say it has never been less than 300 feet, which proves the practicability of enforcing the bye-laws.

985. Do you consider that during that period about an equal number of ships have come into the port as formerly?—It is now a time of year when the number of colliers is not so great. About 14 days ago, there were 121 colliers lying in the two Pools, and I counted 116 colliers lying between Woolwich and Deptford, waiting for a market or turns.

986. Do you consider that by proper arrangement and disposition of the coal ships, there is plenty of room in the river for discharging their cargoes, for a full supply to the trade, and keeping a waterway of 300 feet?—The coal trade are satisfied with accommodation for 150 ships. I have submitted a plan, which provides for 163, leaving a waterway unobstructed of 300 feet, and perfect accommodation for all other classes of shipping, if properly arranged; but I am prepared to say that it would be idle to expect that such a state of things will continue another 18 months or two years if the coal trade of the port of London continues to increase, and which is so great already, that some extended and other description of accommodation for the coal ships than that which now exists must be found.

987. The *Lord Mayor.*] Does not that apply to other trades?—No, it does not. The other branches of shipping in the port of London have not increased lately; besides, there is sufficient and convenient accommodation for them to be found, under proper arrangements. There was an increase of colliers in the year 1835, as compared with 1834, of 887, by which 228,000 tons of coal were imported more in the last year than in the previous year.

988. Are you not of opinion that an increased accommodation must be found by some means or other for the steam-boats?—No; as steamers increase, sailing vessels will diminish; besides, steam-boats do not whilst navigating produce the same obstruction; it is the colliers and ships lying in tiers, and beyond a proper number, which form a fixed obstruction that produces the impediment to navigation;—not more than 18 ships ought to be permitted in any one tier.

989. Are you not aware that there are a great many informations laid against

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the proprietors of steam-vessels for obstructing the waterway?—I have not heard of any; but I am glad to hear the law is put in motion, because it shows that an influence is at length operating for the benefit of the port of London, which has been dormant for the last few years; the harbour-masters have not enforced any penalties whatever during the last nine years.

990. Are you not aware that in the investigation which took place before the port of London committee with reference to keeping the waterway 300 feet, a very considerable difference of opinion existed between parties who appeared before that committee as to whether 250 feet would not afford every accommodation to the commerce of the port of London that 300 feet would?—If you allude to the last inquiry, I answer distinctly not; nearly the whole of the evidence was in favour of 300 feet.

991. You have stated in the outset of this proceeding that you were chairman of the committee of steam-packet proprietors and wharfingers; will you have the goodness to state the names of that committee?—

NAMES and Addresses of the General Committee of the London Tavern Meeting of Owners of Steam-packets, Shipowners, Wharfingers and others, connected with the Navigation of the River *Thames.*

James Law Jones, 55, Fenchurch-street, Chairman of Old Margate Steam-packet Company.
James Jenkins, Miller's Wharf, Lower East Smithfield, Agent to Dundee Steam-packets.
William John Hall, Custom-house Quay, Thames-street, Wharfinger.
John Nicholson, East India Wharf, Thames-street.
Henry Grant Warren, Gravesend Diamond Steam-packet Company.
Sir John Hall, K. C. H. St. Katherine Dock Company, and Steam-packet Wharf.
Thomas Hosie, Wharfinger, Miller's Wharf, Lower East Smithfield.
R. P. Cruden, Gravesend, Chairman of Star Steam-packet Company.
Joseph Adams, Leith and Glasgow Wharf, East Smithfield, Agent to Leith Steam-packets.
William John Smith, John-street, Crutched Friars, Agent to Dublin Steam-packets.
Sir Alexander Crichton, 7, Charles-street, Berkeley-square, representing Edinburgh Steam-packet Company.
William Morgan, Hore's Wharf, Wapping, Wharfinger.
John Bleaden, 47, Lothbury, Secretary to the Commercial Steam-packet Company.
Edward Tickner, Bride-lane, Director of Star Steam-packet Company.
John Blenkarne, London Bridge Wharf, Wharfinger.
G. C. Redman, 48, Lime-street, Shipowner.
Charles J. Carttar, Greenwich, representing Greenwich Steam-packet Company.
Simon Cock, Esq. London Dock-house.
Charles Bleaden, London Tavern, Chairman of Commercial Steam-packet Company.
Edward Stewart, 69, Lombard-street, Director of the General Steam Navigation Company.
William Dawson, Cannon-street, Director of the Diamond Steam-packet Company.
Thomas Farncombe, Wharfinger and Shipowner, Griffith's Wharf.

992. In the examination of the proceedings before the port of London committee there is a letter, signed by T. Wilson, Jeffery-square, dated the 15th July 1835, signed as chairman on behalf of the society of merchants trading to the Continent; was that letter agreed to at a meeting of the members?—It was agreed to at a meeting of the committee, specially convened to take the subject into consideration.

993. Can you tell me what time the committee met?—On the 15th day of July 1835, the same day the letter bears date.

994. Then I am to understand, from the tenor of your evidence to-day, that the Pool has been kept in a satisfactory state for the last five or six weeks?—It has, with the exception of the Mill-hole tiers occasionally.

995. And that if a clear waterway of 300 feet were kept, it would be satisfactory you think to all the interests of the port of London?—I conceive so; but I am of opinion you will not be able to keep that waterway, or have an efficient harbour service, unless you obtain fresh powers, and a much more vigorous and effective supervision; besides, remedial regulations as to the speed of steam-boats, improved wherries, and the removal of the shoals and mud-banks, are all indispensably necessary to make the remedy perfect, and improve the port.

996. *Chairman.*] But there has been no additional supervision that has enabled that waterway to be kept during the last five or six weeks?—The harbour-masters possessed the same means before which they do now, but the difference is that they have never exercised them properly until recently.

997. Mr.

997. Mr. *G. F. Young.*] Does any power exist under the present laws authorizing the harbour-masters to remove ships summarily which obstruct the navigation?—Yes, forthwith,—and to charge the parties with the expense of the removal; but you cannot enforce the penalty, which is 5 *l.*, for the offence of not removing, until after a 12-hours' notice; but as the power exists with the harbour-masters summarily to remove the ships, the obstruction may by them be abated forthwith.

998. Are the Committee to understand, if the harbour-master thought fit to take men on board the ship, he might himself remove that ship, and be justified in doing so?—Certainly. In their returns to this Committee, No. 21, they admit they have caused the removal of vessels under such circumstances, and have made them pay the expenses, which proves that they are aware they possess the power. But this, I apprehend, ought to be resorted to only in cases of positive and immediate obstruction; it would, except in extreme cases, be preferable to serve the notice, and if not complied with, sue for the penalty. The power is to be found in the 97th sec. of the 39 Geo. 3, c. 69, repealed by the 10 Geo. 4, c. 124, and the further powers will be found in the bye-laws. (*See* Nos. 22 and 23.) The 12-hour notice regulation was repealed by the 8th sec. of the 10 Geo. 4, c. 124.

999. Mr. *Angerstein.*] Do you know the form of the notice?—There is a form of notice prepared under the Act, which the harbour-master has with him, ready to fill up.

1000. Mr. *G. F. Young.*] You have adverted in your evidence to the expediency of the construction of collier docks, as the means of clearing the river from obstructions. Are you of opinion that the owners of ships would avail themselves of any facility that would be afforded by collier docks, unless compelled to make use of them by special enactment?—I think they would; I consider the advantages would be so manifest to the owners of coal ships, and particularly to the owners of many valuable ships that are frequently employed in that branch of trade at certain seasons of the year, that they would avail themselves of collier docks without any compulsory clause; but I am decidedly of opinion, that under the circumstance of the great increasing trade in coals, it would be desirable to make a prospective provision for emergencies, and therefore to vest a power in the Lords of the Council, that so soon as proper collier docks are constructed their Lordships should have the power, by Order in Council, of diminishing and interdicting altogether, gradually, the discharge of coal ships in the stream. Since I was first examined, the Watermen's Company have published their altered bye-laws, of which I have a copy in my hand. It will appear by those bye-laws that a skiff is proposed to be substituted for the present boat, but which would be perfectly unsuitable for the general navigation of the river. I beg to put in a plan and section, (marked (B.), No. 2,) showing a comparative statement of such skiff, as compared with the model on the table; and there are two boat-builders, Mr. Lyons and Mr. Forrest, in attendance, who will give the Committee their decided opinion as to the impracticability of using the skiff for general purposes, such as is proposed by the Watermen's Company, and of the advantage that would result from the use of the square-sterned wherry proposed by the London Tavern committee, a model and plan of which are before this Committee. The square-sterned wherry provided for by the Watermen's Company has no more freeboard than the present.

1001. Have you a copy of the bye laws to which you have referred?—I have.

1002. Please to put it in?

[*The following Bye-laws were then put in:*]

ADDITIONAL RULES and BYE-LAWS for the Regulation of the Watermen and Lightermen of the River Thames; by the Court of Mayor and Aldermen of the City of London.

Copeland, Mayor.

A Court of Mayor and Aldermen of the City of London, held in the Inner Chamber of the Guildhall of the City of London, on Tuesday the 29th day of March, in the year of our Lord 1836, and in the sixth year of the reign of William the Fourth, by the grace of God of the United Kingdom of Great Britain and Ireland King, Defender of the Faith, &c.

RULES and BYE-LAWS made and set down in writing by the Court of Mayor and Aldermen of the City of London, for the government and regulation of the Freemen of the Company of the Master, Wardens, and Commonalty of Watermen and Lightermen of

Sir *John Hall.*

8 June 1836.

the River Thames, and their Widows and Apprentices, and the Boats, Vessels, and other Craft to be rowed or worked by them in all parts of the said River, from and opposite to and including the town of New Windsor, in the county of Berks, and to and opposite to and including Yantlet-creek, in the county of Kent, and all Docks, Canals, Creeks and Harbours of or out of the said Rivers, so far as the tide flows therein; in pursuance and under the authority of an Act of Parliament, made and passed in the seventh and eighth years of the reign of his late Majesty King George the Fourth, intituled, "An Act for the better regulation of the Watermen and Lightermen on the River Thames, between Yantlet-creek and Windsor."

Repeal of Bye-laws, Nos. 4, 5, 6, and 7.

1. That the rules and bye-laws, numbered respectively 4, 5, 6 and 7, made and set down in writing by the Court of Mayor and Aldermen of the city of London, on or about the 15th day of April, in the year of our Lord 1828, shall be, and the same are hereby repealed and made void.

Burthen, size, and dimensions of wherries or boats to carry eight passengers.

2. That the burthen, size and dimensions of a wherry, boat, or other vessel (except the wherries, boats and other vessels hereinafter specifically mentioned) to carry eight persons or passengers, hereafter to be built, shall be as follows (that is to say): the length of the keel, 20 ft. 6 in. at least; the extreme breadth in the midships, 4 ft. 6 in. at least; the depth in the midships, 1 ft. 6 in. at least; the breadth of the floor at third lands in the midships of the state-room, 3 ft. 1 in. at least; the rise of the floor at third lands in the midships of the state-room not to exceed 2 ¾ in.; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 ft. 9 in. at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 4 in.; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 2 ft. 3 ½ in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 6 in.; and such wherry, boat, or other vessel (except as aforesaid) shall be of the burthen of 21 cwt. at least.

Burthen, size, and dimensions of wherries or boats to carry six passengers.

3. That the burthen, size and dimensions of a wherry, boat or other vessel (except the wherries, boats and other vessels hereinafter specifically mentioned) to carry six persons or passengers, hereafter to be built, shall be as follows (that is to say): the length of the keel, 20 ft. 6 in. at least; the extreme breadth in the midships, 4 ft. 5 ½ in. at least; the depth in the midships, 1 ft. 5 in. at least; the breadth of the floor at third lands in the midships of the state-room, 2 ft. 11 in. at least; the rise of the floor at third lands in the midships of the state-room not to exceed 3 ½ in.; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 ft. 7 in. at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 4 ½ in.; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 2 ft. 1 in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 7 in.; and such last-mentioned wherry, boat or other vessel (except as aforesaid) shall be of the burthen of 18 cwt. at least.

Burthen, size, and dimensions of wherries or boats to carry four passengers.

4. That the burthen, size and dimensions of a wherry, boat or other vessel (except the wherries, boats and other vessels hereinafter specifically mentioned) to carry four persons or passengers, hereafter to be built, shall be as follows (that is to say): the length of the keel, 20 ft. 6 in. at least; the extreme breadth in the midships, 4 ft. 5 in. at least; the depth in the midships, 1 ft. 4 in. at least; the breadth of the floor at third lands in the midships of the state-room, 2 ft. 8 in. at least; the rise of the floor at third lands in the midships of the state-room not to exceed 4 ½ in.; the breadth of the floor at third lands, at the timber on the foreside of the backboard thwart, 2 ft. 4 in. at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 4 ½ in.; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 1 ft. 10 in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 7 ¼ in.; and such last-mentioned wherry, boat or other vessel (except as aforesaid) shall be of the burthen of 15 cwt. at least.

Burthen, size, and dimensions of square-sterned wherries.

5. That the burthen, size and dimensions of a square-sterned wherry, used for carrying persons or passengers, shall be in length of keel 19 ft. at the least, and built in every other respect, except as to the shape thereof, according to the foregoing rules and bye-laws, numbered respectively, 2, 3 and 4, and shall be of the burthen of the wherries, boats or other vessels in the same rules and bye-laws respectively mentioned and described; and that such square-sterned wherries, so built as aforesaid, shall and may be licensed to carry the same number of persons or passengers respectively as other wherries built according to the different sizes and dimensions mentioned in the aforesaid rules and bye-laws are respectively licensed to carry.

Burthen, size, and dimensions of skiffs to carry eight passengers.

6. That the burthen, size and dimensions of a skiff, to carry eight persons or passengers hereafter to be built, shall be as follows (that is to say): the length of the keel, 18 ft. at least; the extreme breadth in the midships, 5 ft. 4 in. at least; the depth in the midships, 2 ft. at least; the breadth of the floor at third lands in the midships of the state-room, 3 ft. 2 in. at least; the rise of the floor at third lands in the midships of the state-room not to exceed 4 in.; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 ft. 10 in. at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 5 in.; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 2 ft. 10 in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 6 in.; and such skiff shall be of the burthen of 2 tons at least.

7. That

7. That the burthen, size and dimensions of a skiff to carry six persons or passengers, hereafter to be built, shall be as follows (that is to say): the length of the keel, 16 feet at least; the extreme breadth in the midships, 5 ft. 4 in. at least; the depth in the midships, 1 ft. 11 in. at least; the breadth of the floor at third lands in the midships of the state-room, 3 ft. 1 in. at least; the rise of the floor at third lands in the midships of the state-room not to exceed 4 in.; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 ft. 7 in. at least; the rise of the floor at third lands at the timber on the foreside of the spray thwart, 2 ft. 9 in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 6 ½ in.; and such last-mentioned skiff shall be of the burthen of 1 ⅝ tons at least. Burthen, size, and dimensions of skiffs to carry six passengers.

8. That the burthen, size and dimensions of a skiff to carry four persons or passengers, hereafter to be built, shall be as follows (that is to say): the length of the keel, 14 ft. at least; the extreme breadth in the midships, 5 ft. at least; the depth in the midships, 1 ft. 10 in. at least; the breadth of the floor at third lands in the midships of the state-room, 2 ft. 8 in. at least; the rise of the floor at third lands in the midships of the state-room, not to exceed 4 in.; the breadth of the floor at third lands at the timber on the foreside of the backboard thwart, 2 ft. 4 in. at least; the rise of the floor at third lands at the timber on the foreside of the backboard thwart not to exceed 4 ½ in.; the breadth of the floor at third lands at the timber on the foreside of the spray thwart, 2 ft. 5 in. at least; and the rise of the floor at third lands at the timber on the foreside of the spray thwart not to exceed 5 ½ in.; and such last-mentioned skiff shall be of the burthen of 1 ton at least. Burthen, size, and dimensions of skiffs to carry four passengers.

9. That in all licences to be granted by the Court of Master, Wardens and Assistants of the said company, or the widow of any freeman, to use and work for hire any wherry, boat or other vessel already built, for carrying persons or passengers on the said river Thames, within the limits of the said Act of Parliament, not being of the size and dimensions before mentioned, the number of persons or passengers such wherry, boat or other vessel respectively shall be permitted to take and carry shall be limited and expressed as near as can be according to the proportion or size and dimensions such wherry, boat or other vessel shall bear to the respective scales for the burthen, size and dimensions of wherries, boats or other vessels, to carry eight, six or four persons or passengers, to be hereafter built as hereinbefore is mentioned. For licensing boats already built, not of the required dimensions of boats, &c. to be hereafter built.

10. That if any freeman of the said company, or his apprentice, or the apprentice of any widow of such freeman, shall ply for, take or carry any fare, or any goods or merchandize, at or from any place not set forth, appointed and marked by the Court of Master, Wardens and Assistants of the said company (except such fare shall call such freeman or apprentice passing up or down the said river Thames), he shall forfeit and pay for every such offence any sum of money not exeeeding 20 *s.* nor less than 5 *s.* Plying for and taking fares at other than marked plying places.

11. That if any freeman of the said company, or his apprentice, or the apprentice of any widow of such freeman, shall on a Sunday ply for, take or carry any fare or passenger across the said river, at or from any place not set forth and marked by the said Court of Master, Wardens and Assistants of the said company, he shall forfeit and pay for every such offence any sum of money not exceeding 40 *s.* Plying for and taking fares on a Sunday at other than marked plying places.

Woodthorpe.

I have perused and examined the foregoing rules and bye-laws, and do allow of the same. Dated the 5th day of May 1836.

N. C Tindall.

1003. Mr. *Alsager.*] I wish to know whether, if collier docks were established, the evils arising from the use of small boats would not be obviated in consequence of the greater space afforded?—Certainly not; you must have an improved wherry; the present wherry, exclusive of existing obstructions and insecurity that may exist in the river, and from the introduction of steam navigation, is not fit for use below bridge, nor is it safe. I beg leave to suggest also to the Committee the importance of making some regulation by which the nuisance to all persons residing on the banks of the river Thames, arising from the smoke of steamers, and the ignited flakes of soot from their funnels, may be diminished, if not wholly removed. This might be done by compelling the proprietors to cause the engines to be so constructed as to consume their own smoke, or to require them to burn Welsh coal or coke. During daylight it is not possible at times to open the windows of houses on the banks of the river without injury to furniture, paint, &c. &c.

1004. Mr. *Warburton.*] If it were obligatory on the various navigable steam-vessels to consume their own smoke, would it not diminish the risk also arising from fire?—Most certainly; ignited flakes of soot are now seen frequently floating in the air, and carried by the wind towards the wharfs, upon which combustible articles are deposited.

1005. Is it not the case that in railways they burn coke to prevent that annoyance?—I think they do.

1006. What is the reason of their burning Welsh coal?—It produces very little smoke; we burn it in furnaces, and our engine-stokers prefer it.

1007. Would that be a great additional expense?—No, I should think not. We find Welsh coal for the furnaces preferable.

Veneris, 10° *die Junii*, 1836.

MEMBERS PRESENT.

Mr. Fox Maule.	Mr. Alsager.
Mr. Angerstein.	Mr. Alderman Thompson.
Mr. Warburton.	

MR. FOX MAULE, IN THE CHAIR.

Mr. *David Smith*, called in; and Examined.

Mr. *David Smith*.

10 June 1836.

1008. Mr. *Alsager*.] IN what occupation are you?—I am superintendent and dock-master of the Surrey Docks.

1009. How long have you been acquainted with the navigation of the river Thames?—Forty-four years.

1010. You are the principal dock-master of the Grand Surrey Docks?—I am.

1011. How long have you held your present situation?—Twenty-six years.

1012. Will you have the goodness to point out to the Committee the situation of the Grand Surrey Docks, with respect to the river?—The situation is on the south side of the river Thames, opening into the centre of the pool.

1013. What is the distance down from London Bridge?—About a mile and a half.

1014. By water?—By water it does not exceed two miles.

1015. Your dwelling is situated on the Dock Wall?—Yes.

1016. Facing the river?—Yes.

1017. Then from the peculiar situation of the entrance to those docks very near your residence, will you state to the Committee what you have observed with respect to the navigation of the river, and the moving up and down of ships, and the impediment in the way of navigation?—You are aware of the immense increase of shipping to the Port of London, nine-tenths of which, I should suppose, of those ships, particularly since the exclusive privilege of the East and West India Docks expired, either centre in or pass through the pool, and thereby render that portion of the river, even if there were no ships moored in the stream, barely sufficient for the safe navigation of the pool; and while coal ships are allowed to lay at insecure moorings and badly arranged tiers, as they do at present, contracting the entrance to the pool sometimes to less than 200 feet of navigable water space, the existing evil is likely not only to continue, but to increase in proportion to the increase of shipping (particularly in the coal trade and steam navigation). This passes continually under my inspection.

1018. Are you aware of any peculiar alteration in the formation of the river since you have held your situation, with regard to sulliage, or any observation upon the depth of water lessening?—I believe the main channel of the river, especially through the pool, through Limehouse, Deptford and Greenwich Reaches, has not been affected materially by sulliage. I believe the depth of water at the present time in those places is the same now as it was in 1792, when I first became acquainted with the river; and I believe that will be borne out in evidence by Captain Bullock.

1019. But it is in evidence, that in several places the increase of sulliage is very considerable?—I grant that in several bights of the river, such, for instance, as from Wapping Ness to the lower entrance of the London Docks, a very great deposit is created, owing to the eddy-tide formed there, but it extends but a very short way into the river; it there meets the strength of the current, and is carried away by the tide, but never does materially affect the main bed or channel of the river, inasmuch as the ebb-tide running two hours longer than the flood-tide, consequently nothing can be brought back to the same spot from whence it is once swept away. Therefore the only remedy that can by possibility be applied so as to take effect, is the removing the colliers from the stream altogether. I have seen a plan for mooring colliers to secure moorings, and it is so far an improved plan (it now lies before me). It would remove the evil as a temporary measure, but could not effectually remove it, unless the colliers were removed out of the stream.

1020. Mr. *Maule*.] Supposing the colliers were entirely removed out of the stream, is it your opinion that a vast quantity of sulliage would get upon the banks,

banks, which would tend to lessen the depth of water?—I have answered that question, I think. The main channel has never been materially affected by sulliage.

1021. Supposing the colliers were altogether removed out of the stream, and not moored in tiers as they are at present, or as proposed to be moored by the present plan, would not an immense quantity of sulliage collect upon the shores which does not exist at present, owing to the colliers being moored, and to the working of the tide under those colliers?—The colliers are more particularly found in the main channel.

1022. Mr. *Warburton.*] Have you ever examined the main channel, where there are no ships moored, by a diving-bell, or in any other way?—I have not. The coal vessels which lie in the pool are generally moored in the channel.

1023. Mr. *Angerstein.*] Is it not possible, in consequence of the mooring of vessels, that the power of the water is increased in the main channel?—I doubt not.

1024. Mr. *Warburton.*] Do you believe that the channel, on examining the bed of the river where the ships are moored, will be found to be perfectly clean from mud?—I am aware that in 1792 we had from 16 to 17 feet water in the Reaches I have mentioned; and I believe it is so now. I am not sure that the bed is perfectly clean; I never did make the examination.

1025. In whatever way you have examined it, do you not believe that it will be found, in the main channel, clean of mud?—Yes, I believe it would, inasmuch as there would be no deposit. I have known it for 44 years.

1026. In the main channel, in spring-tides, the great rush of water must keep it clean of mud?—Decidedly.

1027. And it is not necessary to moor ships in the main channel, in order to keep the bed of the river clean?—No, not the least; but be pleased to bear in mind, that the mode of discharging coals from ships into open craft in the stream, causes a very great deposit; and it is the worst kind of sulliage, for it is small coal and coal-dust, which is daily blown into the stream, and which is one of the serious causes of the increase of sulliage along the shores of the pool.

1028. A great many persons get their livelihood from picking up small coals?—Yes. I analysed the mud that floats into the docks from the pool, and found it mixed with a great proportion of coal-dust. In attempting to make bricks from this sulliage, we were obliged to lessen materially the usual proportion of coal-cinders. There is an immense proportion of this coal-dust blown into the river; so that by removing the colliers, you remove a vast quantity of sulliage.

1029. Mr. *Alsager.*] You are aware of the obstructions, and consequently of the many accidents, and the loss of property which take place in entering and passing through the pool, especially in late years?—Yes, certainly; they pass under my observation every day, in the situation in which I am placed.

1030. Would that amount in the aggregate to a large sum, and the loss of life, &c. &c.?—Yes; in my opinion it would.

1031. Then the loss of property in the aggregate, upon all the ships that enter the port, would amount to a very large sum?—Yes.

1032. You mean spars, and so on?—Yes; I dare say there is hardly a tide but that there is some damage done.

1033. Have you any statement of the amount of damage?—I have not.

1034. You are aware of it?—Yes, certainly.

1035. In consequence of the crowded state of the river, great damage arises from ships coming up and down?—Yes, I see it is very often; some with their chains, galleries, spars and bow-sprits gone, and so on.

1036. Then will you state to the Committee what, in your opinion, principally leads to this?—I have answered already: it is owing to the vast increase of shipping to the port of London, nine-tenths of which, particularly since the exclusive privileges of the East and West India Docks have expired, either centre in or pass through the pool of the river, and thereby render that portion of the river, even were no vessels allowed to moor in the stream, barely sufficient for safe navigation. But the grand obstruction arises from the vast increase in the coal trade and steam navigation. While colliers are allowed to lie at insecure moorings and badly arranged tiers, contracting the entrance to the pool sometimes to less than 200 feet of navigable water space, the existing

Mr. *David Smith.*

10 June 1836.

evil is likely not only to continue, but to increase in proportion to the increase of shipping in these particular trades.

1037. Have you observed any change with regard to the channel of the river being kept free from obstruction?—I believe the river has been better conducted lately, by the practical officers; but it is impossible for any harbour-master to control the ships from coming into the pool in bad weather, upon the present system.

1038. Mr. *Maule.*] Then suppose a regular passage of 300 feet made and kept open in the pool, in your opinion would that be sufficient accommodation for the trade up and down the river?—As a temporary measure only. The increase in the trades alluded to is too great, and likely to increase.

1039. If that were kept 300 feet wide, is not that sufficient?—No: now, for instance, a ship of 900 tons coming up, with two steam-boats, to the London and St. Katherine's Docks, and supposing they meet another similarly impelled in an opposite direction, and also other vessels contending for the same channel; there not being space enough, they would possibly be thrown athwart-hawse of the next tier on the south shore, and be exposed to loss and serious damage.

1040. Mr. *Angerstein.*] How is the power of steam applied to the conveyance of the ship up the pool?—There are frequently two steam-boats, one boat alongside the ship, and another at her head, or one on one side, and the other on the other; sometimes they are obliged to run ahead; it is just according to circumstances.

1041. Mr. *Warburton.*] Do they apply steam-boats generally to ships?—Yes; and it is a great accommodation. They never could have brought those ships up to the London and St. Katherine's Docks but from that circumstance; and inasmuch as the trade of the port is brought nearer to London by these docks, they ought to have proper accommodation, and you cannot give that accommodation from 300 feet.

1042. Therefore the 300 feet would be but a make-shift?—Yes, certainly only a make-shift.

1043. Mr. *Angerstein.*] It is your opinion that that will not effectually remedy the evil?—I am decidedly of that opinion.

1044. However the vessels may be arranged?—Yes. The plan proposed can only be temporary; but any improvement upon the present plan is better.

1045. Do you not consider, speaking disinterestedly of the collier and timber merchant, that the collier is the one that should be compelled to go into the docks the soonest of all classes of commercial produce?—The timber trade is not affected so much by it. It does but partially come into the pool; there are no ships discharged, except a few with tallow, hemp and deals, very few with floating timber. The timber trade discharge in Limehouse Hole. The coal trade is the most important trade which moor and discharge in the pool of the river, and of course create the obstruction.

1046. Mr. *Warburton.*] What is the name of this place (*pointing to the map*)?—This is the pool of the river. This is Church Hole Tier.

1047. Some Baltic ships discharge at Church Hole?—Yes.

1048. And a very large proportion go into the Grand Surrey Canal and Commercial Docks?—Yes.

1049. Mr. *Angerstein.*] Is it your opinion, if the collier docks were established, the price of coals would be diminished or increased?—I should say certainly not increased.

1050. Mr. *Warburton.*] Do you think the prevention of the damage which occurs to vessels on the average that lie in the pool, would be sufficient to meet a large portion of the expense consequent on their going into the docks? Do you think that the discharge in the stream would afford, in the aggregate, a sum sufficient to meet a considerable part of the expense consequent upon their going into, discharging and coming out of a dock?—The average expense incurred in the river, independent of all other charges consequent upon a voyage, is estimated, I understand, at an average of 5 *l.* per voyage.

1051. That includes the average of damage?—Yes. I believe the average is established by themselves; they are insured by companies, and the allowance they estimate, I understand, is about 5 *l.* a voyage upon a vessel of 280 tons; upon a 290 ton ship that amounts to 4 *d.* a ton. I think 6 *d.* per ton upon the coals delivered out of a ship, would be sufficient to remunerate the Dock Company for the charge upon the ship.

1052. Then do you believe that there would be such a saving made in the time of discharging the coals out of the vessels, by proper arrangement, as to make only a difference of 2 *d.* a ton?—I should say so, decidedly; a ship would make two voyages a year more. No ship need to lie there beyond the time of discharging, and they can easily discharge a ship in three days in a dock.

1053. Therefore the prevention of the damage and the shorter time of discharging, together, would afford a sufficient fund for paying the expense of the ship frequenting the collier dock?—I should think so.

1054. Mr. *Alsager.*] With every arrangement with respect to mooring, how many colliers could you accommodate in that portion of the river where they generally discharge their cargo?—I think the plan proposed embraces all that ought to be moored at any one time; I think they have gone to the full extent.

1055. Mr. *Warburton.*] Are you aware of the improved plan submitted by the St. Katherine's Dock, of mooring 207?—I am aware of that; I think I have seen that plan. But the plan before me is the best arranged plan I have seen, according to my judgment; I believe that is a copy before you. This plan before me is the best plan I have seen. [Mr. *Alsager* gave the Witness a plan.] This is a plan for mooring ships upon the south side.

1056. In this plan proposed by St. Katherine's Docks, there are six tiers, which you object to?—Ships cannot lie with safety upon the south side of the river.

1057. Taking the number moored in those six tiers, how many do you deduct from the 207?—Forty-two sail.

1058. How many collier vessels have you known to arrive, say upon an average upon particular occasions, such as a change of wind?—I have never made it my business to ascertain exactly the number, but I believe frequently exceeding 200, from the best authority I have heard that stated; I have heard it stated from the harbour-master, frequently 300. I never was in the department to ascertain these facts.

1059. Have you not observed, in the course of your experience, that numbers of colliers have stopped at various distances down the river, for want of accommodation in the pool?—Certainly; and they thus become great nuisances.

1060. Is it your opinion that docks of so extensive a nature could be constructed as to accommodate the coal trade?—Yes; I have no hesitation in stating that docks may be so constructed to answer all the purposes of the trade.

1061. Mr. *Alsager.*] Would one or two be required?—I think one dock could be constructed sufficient to accommodate the whole trade. It might, perhaps, be necessary to have docks on both sides the river.

1062. Mr. *Warburton.*] Where do you think there is space for them; the entrance would be to the south of the East-country Docks, and the exit would be to the west of the entrance to the Surrey Canal (*pointing to the plan*)?—Yes; and that would, by taking the advantage of the Surrey Canal, if completed, enable them to go into the river at Vauxhall, that way (*pointing to the plan.*)

1063. Do you anticipate any obstruction on the part of empty barges going into the dock to load with coals, and coming out again?—No, not the least.

1064. Would not the remedy for that be to get one lock for the exit, and another for the entrance?—A tide-basin for the ships, and another for the barges, would obviate every difficulty; colliers would not have occasion to come into the pool at all; the coal barges would never have occasion to pass below that point (*pointing to the plan.*)

1065. Mr. *Alsager.*] Have you formed your opinion as to whether these docks will afford accommodation for the whole trade?—I have. I have turned my attention to it, because the situation seems to be most suitable.

1066. Mr. *Warburton.*] How many ships would those docks give accommodation to?—To the daily discharge of 200 sail of ships, with a clear working side to each.

1067. Mr. *Angerstein.*] Can you state to the Committee any of the proceedings with steam-boats going up and down the river, with regard to their speed; can you suggest any mode of regulating their speed? I suppose you are aware of the petition from Rotherhithe, about the number of accidents that have

Mr. *David Smith.*

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happened?—I am a party to the petition: if they are regulated by speed, where is it intended to commence?

1068. Before the Committee, it appeared that where the river is crowded with vessels, that is, Blackwall, beginning at Blackwall, there the river gets narrow?—It should commence full as low down as Blackwall, because there is greater chance of losing life in the lower reaches, and there is a greater chance of preserving life in the pool than at Blackwall, inasmuch as if a man is thrown overboard in the pool, from the many boats plying in all directions there is the chance of being picked up again immediately; but it is not so in Greenwich and Blackwall Reaches.

1069. Have you any means of regulating the speed of the steam-boats?—I have not turned my attention to that.

1070. Mr. *Alsager.*] There have been complaints made, have there not, in consequence of colliers lying off at Blackwall?—There are complaints made from the docks, and by the trade in general.

1071. In consequence of that?—Yes; many times ships are detained below. I have known instances of ships intending to enter the docks, having lost the benefit of spring-tides in consequence of these colliers lying at single anchor in Greenwich Reach.

1072. Mr. *Maule.*] Would it be an advantage for the ships waiting to come up either into the pool or the docks, if they should be moored in regular tiers at specific places, either at Greenwich Reach or Blackwall?—Certainly; the closer they are kept together, the better.

1073. That would be advantageous?—Yes.

1074. Mr. *Alsager.*] How many places would you recommend?—Blackwall Reach, that is a bad reach, and Greenwich Reach is a place where greater fault is found than any other part of the river.

1075. The ships anchor in the stream?—Yes.

1076. Mr. *Crawford.*] I beg leave to move, that the Report to the Court of Common Council from the Thames Navigation and Port of London Committee, presented the 29th of October 1835, with proposed new by-laws for the harbour service of the port of London, and a plan for mooring colliers conformably thereto, be put on the proceedings of this Committee.

(The Committee were of opinion, that the above should be put upon the proceedings of the Committee.)

Veneris, 17° die Junii, 1836.

MEMBERS PRESENT.

Mr. Fox Maule.	Mr. Alderman Wood.
Mr. Angerstein.	The Lord Mayor.
Mr. William Crawford.	Mr. Warburton.
Captain Alsager.	Mr. G. F. Young.
Mr. Williams.	Mr. Alderman Thompson.
Mr Labouchere.	

MR. FOX MAULE, IN THE CHAIR.

George Taylor, Esq., called in; and Examined.

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1077. YOU are of the house of Dalgeish and Taylor?—Yes.

1078. I believe you are a coal merchant, carrying on business in Great Scotland-yard?—Yes.

1079. How many years have you been in the coal trade?—Upwards of 30 years.

1080. You are a large buyer upon the coal market, and consequently employ a great number of coal barges?—Yes.

1081. How many barges are necessary to carry on your business?—Twenty five we have at present.

1082. Do you ever send down your barges into docks to load coals?—Never.

1083. In the event of your being obliged by Act of Parliament to do so, would the same number of barges be sufficient to carry on your business?—I conceive not, by a great many.

1084. How

1084. How many additional barges would be required to lighter the same quantity of coals from the docks to Scotland-yard that you now lighter from colliers that discharge in the port of London?—I should think double the number would not be more than sufficient.

1085. And that would be if every facility was given to go in and out of the dock?—Yes; I mean by sending the barges down and waiting till three parts flood to send them into dock, and waiting till high water to send them out again.

1086. In your opinion, you would require nearly double the quantity of barges that you employ at present, to lighter the same quantity of coal to the wharf in Scotland-yard?—Yes.

1087. In the event of your lightermen being directed to load coals from a ship lying at the extremity of the dock, presuming you were obliged to go into the dock to load your coal, have you any idea how that barge would be propelled through the still water?—I suppose by men, but you would require an additional hand in the barge to do so; in the place of one man doing it, it would require two.

1088. Would not that add materially to the expense of the present lighterage?—Most undoubtedly.

1089. Who would that expense fall on?—Ultimately on the public; it would fall upon the merchant in the first instance, and the public would pay for it in the end, of course.

1090. Have you any idea as to what the increase of expense might be per ton to the public?—I should think it would increase our lighterage 1*s.* a ton at least; I do not know what the expenses of the dock might be; there would be a certain expense attending the making of the dock, and of course a charge to the coal merchant; the lighterage I should think would be at least 1*s.* a ton additional.

1091. One shilling a ton, in the event of a lighter going into the dock to load coals, in addition to what is now paid?—I think so.

1092. Suppose it were blowing very hard in the teeth of a light barge, would two men be sufficient to man the barge?—If it was blowing fresh in still water, I do not think two men could do it, or any power, from the dock gates to where the ship would be lying; it would be impossible to get the barge there at all by manual labour.

1093. And consequently a delay would arise?—Of course, the barge would be delayed till the wind lowered, before they could get to the ship.

1094. What is your practice now with regard to loading coals in the Pool?—We send down a barge in the morning, or whatever number of barges we have to load, and get them up again by the flood tide, the next tide; they are almost always loaded the same day they go down.

1095. Mr. *Crawford.*] You send them down upon the ebb and they return upon the next flood?—They return upon the flood.

1096. The *Lord Mayor.*] Have you any occasion to employ more than one lighterman to each barge?—Not at present; we never send more than one man in each barge. Our barges are all the same size; 35 tons; and it requires one man to navigate one barge.

1097. State to the Committee how often those barges are loaded?—We frequently load the same barge three times in the course of the week; the average of our barges perhaps may not be loaded above once in eight days, taking the average of the times; but if we are sending a large quantity of coals to one house, to a brewer's, for instance, the same barge goes backwards and forwards every other day. They come up perhaps about four in the afternoon, and we get part of them out that night, and the remainder next morning; and she goes down again with that ebb tide, and comes back again with the flood.

1098. Then it is quite possible for you to send your barge down now by ebb tide and receive her back again loaded by flood?—It is almost universally done; we hardly ever leave a barge below; she almost always comes up the same day.

1099. And do you think it would be possible to do so, if you were compelled to go into a dock to load?—It would be impossible, because it would be high water when the barge came out of the dock, and therefore she must remain till the next flood tide.

1100. That would, consequently, increase the expense beyond the extra shilling you have pointed out?—No; I think the 1*s.* would cover all the expenses.

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1101. What proportion of coals that you may purchase do you sell to customers residing below Blackfriars Bridge?—Very few indeed; our business is all at the west-end of the town; not a fiftieth part of the coals we purchase are sent to the east of Blackfriars Bridge.

1102. Suppose you were obliged to send waggons to depôts below Blackfriars Bridge for coals for the supply of your customers, what would be the additional expense per ton to your customers?—I cannot tell; it would be very great, for the carriage from the dock to Scotland-yard, and then sending waggons to the different places where we are to deliver those coals, would be a much cheaper way than sending a waggon down to the dock below London Bridge; it would increase the expense of the waggon and horses to an enormous amount. I never made any calculation, but I should think 3 *s.* or 4 *s.* or 5 *s.* per ton would not pay that additional expense. A waggon and horses could not go above twice a day to the dock and deliver at the west-end of the town, and at present we can go four, five or six times a day from Scotland-yard to the place of delivery.

1103. How many tons do you usually carry in a waggon?—Four tons is the outside; three and a half is the usual load, but we can carry four tons.

1104. And how many does a barge carry?—Thirty-five.

1105. That would be nine loads?—Yes.

1106. Assuming that you were obliged to send your waggons for coals for delivery in London to depôts below London Bridge, the great increase in the number of waggons, which would be necessary to be employed, would cause very great obstruction in the streets of London?—It would block them up completely; I think it would cause a very great obstruction indeed; there is a difficulty now in getting along the streets, and I do not know what it would be then.

1107. Are you acquainted with the shipping that trades to the North in coals?—Our house has no connexion whatever with shipping.

1108. Is it not probable that your barges would receive more damage from being collected in great numbers about the dock entrance, than they do at the present time?—I should think so; there must be a very great deal of damage, in consequence of the crowd of craft that would be collected about the dock-gates; I should think the average of craft loaded just now in the Pool would be 250 to 300 a day. Then there would be the same number of loaded barges coming out at these different dock-gates, and if there were more dock-gates than one, which there probably would be, it would be a very great crowd if there were four or five.

1109. You believe there are 250 craft loaded on the average daily in the river Thames?—I think that is about the average number.

1110. Have you any idea of the extent of the docks that would be required for the accommodation of such a quantity of craft?—I do not know what the size of the dock would be to moor the number of colliers that would be required; sometimes I have known a fleet of 300 colliers come up between one market day and another, but I do not know what extent of ground would be required to be excavated to allow these colliers to come into.

1111. From the experience you have had, you are decidedly of opinion that if colliers were obliged by Act of Parliament to unload in docks, the cost of the article to the consumer in London would be at an increased rate?—I decidedly think so.

1112. And that one item of that increase would be at least 1*s.* a ton?—On the lighterage only I think it would be that, and there would be the additional expense of the dock; and if they were brought from the ships by waggons and landed at depôts by the side of the docks, it would be a still greater expense to the public, a great deal more than it would be if they were brought up by water, because land-carriage is much more expensive.

1113. You are aware that coal merchants generally stand at a very high rental indeed for their wharfs?—Yes, our own wharf costs us 1,000*l.* a year; we pay 1,000*l.* a year to the Duke of Northumberland.

1114. Presuming that the docks were built, and that you had a depôt near them, do you think it would be any saving to you to give up that wharf?—It would cost us more in horseflesh for our business going down there than we should save in the expense of the wharf; it would cost us more to do so.

1115. You would not have occasion to employ so many craft if you were to send down waggons below London Bridge?—Of course we should not require any craft.

1116. That

1116. That of course would be an item saved; still, upon the balance of account, you think it would be worse for you?—Yes; because I know what the lighterage is at present, and the carting would be a great deal more.

1117. The Committee understand you have formed no opinion whatever as to whether there will be any chance of the shipping receiving greater damage if they were to unload in the dock, than they at present receive by unloading in the Pool?—I am not cognisant of shipping personally, only having heard other people speak of it.

1118. Mr. *Angerstein.*] Do you not think if collier-docks were established, it would be the practice to have coal-yards, which on an average of time would tend to reduce the price of coal in London?—An establishment in the west-end of the town, do you mean?

1119. That there might be coal-yards established, and that, on an average of time, the tendency of that would be to reduce the price of coal to the consumer?—I do not think so, for there are no coals that we warehouse now that ever pay the expense of warehousing; we warehouse coals as a matter of convenience, in case of any stoppage in the river from ice or anything of that kind, but it never pays us to warehouse them.

1120. I understand the practice of the trade now is to convert coal-craft into yards; that they leave the coal in the craft till called for, which causes an obstruction to the river?—It does not cause any obstruction to the river at our wharfs, or any of the wharfs I know along the river side.

1121. Mr. *Warburton.*] The question is not whether it causes an obstruction at the wharf, but whether it does so at all?—The quantity of craft going down below will cause an obstruction where the river is narrow.

1122. If the coal is kept afloat, either in ships or barges, beyond the time necessary for unloading it, must it not cause an obstruction to that extent in the river?—Most certainly.

1123. Mr. *Crawford.*] Do I understand rightly, that the sending down and loading of a barge is generally the work of two tides?—Generally.

1124. Or, in other words, the occupation of a barge for one day?—Certainly.

1125. Now, you have told the Committee that, on an average, though you stated some exceptions, each of your barges is loaded once in eight days?—Once in eight days.

1126. Then, what becomes of that barge during the other seven days?—She lies at the wharf.

1127. With her coals in?—With her coals in.

1128. Then it appears that the barges are used as floating warehouses, each barge for the period of seven days on an average?—That is the case.

1129. Do you not consider that a very great obstruction?—No; if you were walking along the side of the river, you would see that our barges are confined very much up to the wall of the wharf, so that they do not extend into the stream; one-half of the tide they lay aground.

1130. Your answer applies to your trade?—Yes.

1131. But, knowing as you do the banks of the river, do you not consider that the practice of coal merchants keeping barges for seven days at wharfs with coals in them is an obstruction, generally speaking, to the navigation of the river?—I think in particular cases it may be, but, generally speaking, I should say not; I know there are many instances of it, but, generally speaking, I should say no.

1132. You have stated to the Committee that the landing of coals, which you find it sometimes necessary to resort to, is attended with a very heavy additional expense in the progress of the coal to the consumer?—Certainly.

1133. What is the amount of the additional expense which would be incurred by landing coal from the barge and placing it on the wharf, to be afterwards delivered to the consumer; what is the expense of warehousing, that is, the double process of landing and loading?—From 1*s.* to 1*s.* 6*d.* a ton; that is what we pay for warehousing from the barge into the warehouse, according to the distance the barge is from the warehouse; 1*s.* is the lowest we give, and sometimes, if it is a greater distance, it is 1*s.* 6*d.*

1134. Then, if the course of your trade were, that your barges as soon as they came up were unloaded, by being warehoused, inasmuch as the barges would then be near the shore, the expense to you would be 1*s.* per ton?—The expense to us would be 1*s.* per ton.

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1135. And then would you have the services of those barges again immediately, instead of their being occupied for seven days as a floating warehouse?—Yes; we should not want the number of barges, most certainly, if we warehoused them as they came up, and therefore the same space would not be occupied by them.

1136. Then it appears that one of the great obstructions, so far as the loaded craft in the river are obstructions, is occasioned by the practice of the coal trade of making their barges floating warehouses till they have customers for their coal?—In many instances, certainly, I have known those obstructions arise from the number of barges that have been at a wharf where the river is narrow.

1137–8. I do not speak now to the amount of obstruction, but the obstruction, such as it may be, is occasioned by the practice of the coal trade making their barges floating warehouses for their coal till they find a sale for it?—What obstruction there is, is certainly occasioned by that.

1139. In point of fact, it is not the practice, it is only the exception in the coal trade, to warehouse coal at all?—Yes, it is the exception.

1140. The *Lord Mayor.*] Is it not notorious that persons having wharfs above bridge, whether as coal merchants or timber merchants, allow their barges to be moored in the centre of the river?—It applies to our trade, and more particularly so to the deal trade; I have known as great obstructions in the river from the deal trade as I have from the coal trade; when a large fleet of deal ships arrive at one time, it requires a great number of barges to unload them, and I have known those barges to lay at swinging roads for a long time.

1141. Mr. *Crawford.*] What is the draught of water of a barge of 35 tons light?—I should think about 12 or 14 inches.

1142. Then a barge going down for coals and being light would certainly swim with 18 inches of water?—Yes.

1143. What draught of water do these barges draw when laden?—About four feet, I should say.

1144. Do you apprehend that there would be any difficulty at all in the construction of docks to enable craft, loaded or unloaded, to go in and out at all times of the tide?—I am not engineer enough to know what could be done; I dare say by docking the craft in it could be done at all times; by putting a certain number of barges into a dock, and then raising that to the level of the dock, the craft could be put in.

1145. Suppose that by the use of docks you could still conveniently send a barge away by one tide and have it back by another, would any incovenience attend the conduct of your business?—No, it would not; because we should get them up by the same tide.

1146. My question is, supposing the conveniences of the dock were such that you could despatch a barge upon the ebb and have it back upon the flood, no inconvenience in the ordinary course of your trade would be experienced by you?—Certainly not; it would be the same thing as if we loaded in the stream.

1147. Mr. Alderman *Wood.*] How many barges are there alongside in loading a collier?—Only one at a time; they cannot load more than one at a time.

1148. Mr. *Warburton.*] Do they not fasten the barges that are waiting?—Yes, to the bow of the vessel or the stern.

1149. Mr. *Crawford.*] Of course you are in the habit of buying ships?—The cargoes of ships.

1150. Are you required to receive any given quantity of coal every working day from the vessel?—We bind ourselves, when we buy the cargo, to take it out at the rate of 49 tons per day; we may stop the ship one day altogether, and not do anything if it is inconvenient for us to send barges down, but then next day we must take double the quantity, or at last we must make up the whole time.

1151. What quantity of coal then can a collier conveniently deliver in an ordinary working day?—I think we deliver on an average at least four score of coal, that is, about 84 tons.

1152. You are in the practice generally or frequently of receiving from a collier 84 tons?—Very often.

1153. Though not bound by agreement to take out more than 49 tons?—No.

1154. Mr.

1154. Mr. *Warburton.*] Do you pay demurrage for any days over that time? Yes.

1155. Mr. *Crawford.*] How is that demurrage calculated?—I believe it is arbitrary; there are some ship-owners that do not enforce the demurrage, and some that do. I have never paid it in my life, though I have been over time perhaps two or three or four times in the course of my business, not more.

1156. Mr. *Warburton.*] If demurrage were charged, you would not go to the same ship-owner again?—The ship would be a marked ship if she enforced the demurrage when only occurring once in a way.

1157. Mr. *Crawford.*] Speaking of the few instances in which it has occurred to you, has the delay in the allotted time for clearing her been many days?—No, I do not think I have kept a ship more than one day beyond her time.

1158. The *Lord Mayor.*] I am to understand that, speaking of the additional 1*s.* a ton, which you conceive would be the expense for lighterage if you were bound to warehouse your coal on your own wharf, that would be another additional 1*s.* a ton?—If we were not bound to keep so many craft, you would have to take it off in one case and put it on in the other; that additional 1*s.* would not increase the price of coal.

1159. Mr. *Warburton.*] It would be a set-off against the smaller number of craft?—We can warehouse about 300 or 400 tons altogether, but there are many wharfs that can warehouse a great deal more than that; but the ground is so valuable about Scotland-yard.

1160. The *Lord Mayor.*] Could you carry on your business with the present capacity of your wharfs, if you were obliged to warehouse your coal?—It would be a difficult thing to do; I do not think we could with half the number of barges.

1161. If you were bound to warehouse your coal the moment they came up from the ship to your wharf, could you carry on your trade with the present conveniences you have?—That is a question I can scarcely answer unless I had a trial of it.

1162. Mr. *Crawford.*] What do you believe to be the average quantity of coal that you have afloat at one time?—The average quantity may be about 300 tons, perhaps.

1163. And you have the capacity of warehousing 300 tons?—We have the capacity of warehousing 300 tons.

1164. Captain *Alsager.*] I think you said the general charge per ton for lighterage is about 1*s.*?—One shilling to fifteen pence.

1165. Mr. *Crawford.*] That is, bringing it from the ship to your wharf?—Yes.

1166. Captain *Alsager.*] How low down the river do you include in the 1*s.*?—The Stone Stairs, I think; Ratcliffe Cross; that is the lowest we go.

1167. How far is that below London Bridge by water?—About two miles and a half or three miles.

1168. Do you never meet with any impediments in lying alongside the collier to receive the coals; are there no impediments in the river?—I never met with any; if the ship happened to be lying outside, I have met with damage from a steamer running in, and the barge has been sunk.

1169. I want to know, if you send two miles and a half down the river, suppose there was a collier dock entrance half way between that and London Bridge, whether that would not be rather convenient to empty barges going down?—She would get sooner to her destination.

1170. If the same facility existed in getting in and out of dock, and the distance were lessened, how would you require double the number of barges?—The distance is not lessened; we frequently load barges below London bridge, and you must take the average from the Upper Pool down to the lower part of the Lower Pool.

1171. Mr. *Warburton.*] If you take the dock half way the average distance would be precisely the same?—Yes.

1172. Then why put any additional charge?—Because I understood the Committee to ask whether or not, in going out and into docks, we should be detained; and in consequence of that we should be obliged to increase our number of barges, because we could not get them up and down the same tide; and putting them into dock we should be obliged to have an additional hand to get the barge from the dock gates to the ship, wherever she was situated.

1173. It is on the assumption that your barges would be detained an additional day that you calculate an additional 1 *s.* a ton?—All the expenses taken together. We employ now three lightermen, and I dare say we must employ six if we were to go into docks.

1174. Captain *Alsager.*] You would send down two or three barges at the same time; would not one man assist the others?—No, we could not get one lighterman to do it; they would go at different times of the tide; they would not be there at the same time.

1175. You say colliers come up nearly as high as London Bridge?—A great many small ships come there; they come up to just by the Tower.

1176. Mr. *Crawford.*] But the great bulk of the trade is unloaded at the Pool?—Yes, about Hanover-hole, about Redriff church.

1177. Mr. *Warburton.*] What is the average distance down the river from London Bridge, taking the whole number of ships together, from which you proceed unloaded?—If I am right in supposing three miles to be the extent, the average is one and a half.

1178. But you say there is only a small proportion loaded high up the river, and that the greater part is two miles and a half or three miles?—No; the great bulk is unloaded a mile or a mile and a half below London Bridge.

1179. What is your point at a distance of a mile or a mile and a half?—A mile and a half would be below Redriff church, I think.

1180. Captain *Alsager.*] Where one ship comes to London Bridge, I suppose at least 10 remain in the Pool?—Yes.

1181. Then of course, in that case, if your business is general, you must receive nine cargoes down at the Pool to one at the Tower Stairs?—Yes, but it makes very little difference when the barges are loaded, whether we go half a mile more or less.

1182. Not in a strong wind?—In particular cases it would, certainly.

1183. The *Lord Mayor.*] Those colliers which come up, and unload near London Bridge, are usually small craft bringing up small coal for the supply of steam-vessels, are they not?—No; I know three or four vessels coming from Sunderland constantly loaded there, and they always bring the best coal, Lambton's, Stewart's or Hetton's Wallsend.

1184. Mr. *Angerstein.*] In the course of the year is there not a great deal of coal spilt in the river which tends to obstruct the navigation?—I should think no great deal.

1185. In a question put by the Lord Mayor, he has alluded to the obstruction occasioned by coal waggons in the streets; I beg to ask, whether if collier docks were established, and a canal made communicating with them, the effect of that would not be to bring coal to various parts of the town, and so diminish that obstruction, by passing in various directions across the different bridges?—I think it would.

1186. Mr. *Crawford.*] You have stated that the present expense of bringing coal in your barge is about 1 *s.* per ton?—Yes.

1187. The barge you speak of brings 35 tons, I think?—Yes.

1188. That occupies about one day, does it not?—Yes.

1189. It has the services of one man?—Yes.

1190. Is therefore the expense, when you say it would be 1 *s.* per ton additional, measured over the employment of the barge for that day, or for the barge so long as she has coal in her, which you have already told us is seven days besides?—Eight days, I think I said, on an average; it may be seven or it may be nine.

1191. But in computing the expense, do you reckon 35 *s.* as the expense of the barge for one day, or as the expense of the barge for eight days?—For eight days.

1192. Mr. *Warburton.*] You do not pay demurrage for the lighters?—They are our own; occasionally we hire them, and the hire of a barge is about 25 *l.* if you take her by the year; but if by the day the builder would charge you for a 35 ton barge 7 *s.* a day, and the lighterman's wages are about 6 *s.* a day; that would be 13 *s.*

1193. Then, according to that estimate, 35 tons of coals would be brought up to the wharf by the working of one day for 13 *s.*?—For 13 *s.*

1194. The additional expense is incurred by keeping the lighter floating laden?—

laden?—Yes, the additional expense is by the price of the barge originally, and her wear and tear.

1195. Mr. *Williams.*] Is she not kept laden for seven days for your accommodation?—Yes.

1196. The *Lord Mayor.*] Have you ever seen, in a severe winter, very great impediments arise to your craft going down the river to load with coals?—Yes, in severe winters very great. I recollect a very severe winter, when we could not get the craft down at all, and we were obliged to go down with waggons to the ships' sides alongside of the wharf and unload them into waggons; that was in a very extreme case; the winter of 1814 or 1815, I believe.

1197. Do you apprehend a still greater difficulty would be found from the increase of egress from the docks in severe winters?—The still water would sooner freeze, and they would not be able to get in at all.

1198. Mr. *Warburton.*] Could you not, with as much facility, unload them upon the dock side in such an emergency?—Undoubtedly.

1199. Mr. *Angerstein.*] Suppose coal yards to be established near a railway, in a severe winter; would it not be a great accommodation that coals should be brought by that railway?—In the case of a very severe winter.

1200. The *Lord Mayor.*] Presuming that you hired your craft, you would have to pay 7 *s.* a day for every day you detained it?—Certainly.

1201. And you employ the lightermen at the same time?—We employ the lightermen by weekly wages. If we want an additional one we pay him 6 *s.* for going down and bringing it back.

1202. Mr. Alderman *Wood.*] Is it the practice for you to allow your barges to remain in the stream at any time before you wharf them?—They are brought in immediately on being brought up to the wharf; they are hauled in immediately on coming up.

1203. But it is the practice for a great many coal and timber barges to lie there?—Yes, some barges that are very heavy.

1204. But you do not do that?—No; ours are always brought in immediately.

1205. Mr. *Angerstein.*] Is it not known to you that many lives are lost in consequence of coal craft lying in the river?—I am not aware of any lives being lost in consequence of it; I have known people drowned by falling off the craft, even at our own wharf.

Captain *John Fisher,* called in; and Examined.

1206. *Chairman.*] WILL you give your name and description?—A commander in the navy, and principal harbour-master of the port of London.

1207. The *Lord Mayor.*] You were appointed harbour-master in 1819?—I was.

1208. Are you the principal harbour-master now?—I am.

1209. Can you tell me the number of fatal accidents by steam in the river in the last two years?—I think it is about 18.

1210. How many are there in the Pool?—About seven.

1211. Have these accidents been occasioned by the rapid passage of steam-vessels?—Principally occasioned by the swell caused by the rapid movements of the steam-vessels.

1212. If any person has attributed those accidents to the crowded or irregular state of the river, he is mistaken?—I think so, decidedly.

1213. If a greater space was kept clear in the river than is now kept, and the steam-boats proceeded with the same rapidity, would the same or a greater number of accidents take place, in your opinion?—It appears to me that the clearer the river is, the greater rapidity the steamers go.

1214. If a greater space were kept clear than is kept clear at this time, and the steam-boats proceeded with the same rapidity as now, would a greater number of accidents take place, in your opinion?—I think the same would occur.

1215. What is the rapidity with which steam-boats usually go?—Some go very fast, and some slowly; it depends upon circumstances and the build of the vessels.

1216. The speed regulated in a great measure by the state of the tide?—They go more rapidly when the tide is against them, for when the tide is against them they put on greater propelling power.

1217. They actually go quicker?—Yes.

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1218. Captain *Alsager.*] Do you mean quicker through the water?—It requires a stronger power to go over the ground.

1219. The *Lord Mayor.*] Is five or six miles an hour a proper speed?—I have seen them go from three miles to 10.

1220. Mr. *Warburton.*] Have you seen them go uniformly through the whole of the Pool at this rate of 10 miles an hour, or do you mean that they have only done so in particular places, in order to avoid some danger or obstruction?—I do not say at the rate of 10 miles through the whole, but it may be for two or three minutes they go at that rate, to avoid danger; in fact, my opinion is, if they were compelled to go at a certain rate, there would be more accidents occur then than do now, for they are obliged to put on propelling power to avoid danger.

1221. *Chairman.*] Is it your opinion that the power of regulating the speed of steam-vessels through the Pool should be at the discretion of the commander?—I think so, decidedly.

1222. What do you consider to be the best mode of ascertaining the speed of steam-vessels through the Pool?—There are half mile posts placed along the river; if a person could take the time of their passing from one post to another, that would be the most likely way to ascertain the speed.

1223. Mr. *Warburton.*] Do you mean to say there should be watchmen at every half-mile post?—Yes, between London and Greenwich.

1224. Do you mean that there should be watchmen at every half-mile post, to note down the name of the steamer and the time at which she passed?—I think that the likeliest way to ascertain it.

1225. *Chairman.*] Supposing a steam-boat was limited to the rate of five miles an hour through the Pool; what is the greatest speed at which you have ever seen the tide run down through the Pool?—I think it averages on spring tides about three miles and a half.

1226. That is allowing a mile and a half for the steam-boat to make way by means of her paddles; is that sufficient to enable her to steer?—She could steer, but not avoid danger, going at that speed.

1227. Then these posts would be of no use if the speed was reduced to that?—No, for they are in the habit of going down to Gravesend in two hours; and if the speed was arranged in that way I am confident it would injure the proprietors of steam-boats very much, for passengers go by steam-boats in consequence of the rapid way of travelling.

1228. Have you been in the habit of hearing many complaints made of the crowded state of the Pool?—I have heard complaints, but they have generally come from one quarter.

1229. Mr. *Warburton.*] From what quarter?—From St. Katherine's docks through Sir John Hall.

1230. *Chairman.*] State to the Committee the general nature of the complaints that have proceeded from either that or any other quarter?—I must speak of St. Katherine's Docks, for I can hardly call to my mind any other quarter that it has come from.

1231. Mr. *Williams.*] Have not some of the large wharfingers, Mr. Blenkarne, for instance, complained?—No, he has never complained to me.

1232. The *Lord Mayor.*] You think timeing the vessels from the half-mile posts would be a better course than throttling the valve or any other mechanical mode?—Decidedly so.

1233. Would it not be almost impossible for any person, except an engineer, to convict a captain if such a course were adopted?—I think so.

1234. What is your opinion of the safety of the wherries now used by the watermen below London Bridge?—I think they are not safe; in fact they were not safe before steam navigation was introduced.

1235. Mr. *Warburton.*] Do the wherries made above bridge frequent the river below bridge?—Not often.

1236. The *Lord Mayor.*] Has the danger of their use considerably increased since the introduction of steam navigation?—Most decidedly.

1237. What, in your opinion, is the proper sort of boat to be used below London Bridge?—I think the Greenwich skiffs are the best planned boats I have seen since I have been upon the river; in fact, I have never seen a Greenwich skiff swamped.

1238. Mr. *Warburton.*] Have you any plan or drawing of a Greenwich skiff?—I have a drawing here.

1239. The

1239. The *Lord Mayor.*] Is it generally known by the name you have given to it, that of a Greenwich skiff?—Yes.

1240. Mr. *Angerstein.*] Does not the rowing of a Greenwich skiff increase the difficulty?—A skiff cannot be rowed so fast as a wherry; but people would prefer that rather than run the risk of being drowned.

1241. Does a Greenwich skiff require two men?—I should think so; but there might be a lighter kind of skiff built; the plank of about three-eighths, I think, would be lighter. They pull very fast; I have no fault to find with them; very likely there may be a sea running about six feet, and I have seen these boats cross this sea without any danger; but I have seen several wherries which have attempted it and have been swamped, or have been nearly full of water.

1242. The *Lord Mayor.*] Would it be desirable that the watermen should be enabled to provide themselves with other boats?—Decidedly; they are at present, in consequence of the steam, in a most deplorable state.

1243. The accidents that do happen occur not from the state in which the boat is, but from its construction?—Yes.

1244. Mr. *Warburton.*] Do steam-boats pay tonnage duty?—Those with cargoes do, but not those with passengers.

1245. In your opinion, would a duty on steam-vessels be a proper mode of paying those parties who may be employed to watch their speed?—I think by putting on a duty of a halfpenny a passenger on passage steamers, sufficient funds would be found to pay those watchmen the Lord Mayor has alluded to, and to furnish funds sufficient for the watermen to build better boats, and as these parties pay no tonnage duty, I should think they can have no objection to a slight tax.

1246. You consider if the Greenwich skiff was adopted, that two men would be required to navigate it?—I have seen one hand pull them; but it would be better and more safe with two.

1247. Do you consider it necessary to have two men on board every craft, to navigate up and down the river?—I think not.

1248. The *Lord Mayor.*] How long previous to your appointment had you known the river Thames?—Since the year 1795 I have been up and down occasionally.

1249. What was the state of the river at that period?—I came from the West Indies in 1795, and I think I took two days nearly to get from Greenwich up to Rotherhithe; I came as a passenger in a vessel at that time.

1250. And how long did it take?—I think nearly two days; the river was in a very crowded state. At that time, the West Indiamen used to lie there; there were no docks at that period.

1251. The making of the West India and other docks has removed that obstruction?—It has removed, I should think, upwards of 4,000 sail of vessels out of the river; but there has been a great increase since of coal vessels and coasters.

1252. Do not the timber-laden vessels go into the Commercial docks or to the Surrey canal?—A great many do.

1253. And some into the West India docks?—A great many; but a great many still discharge in the river.

1254. But a large proportion go into these docks?—Yes.

1255. The *Lord Mayor.*] At that period of time the river was a difficult navigation?—Yes.

1256. Mr. *Labouchere.*] Upon the whole, the navigation of the river is improved?—There is no doubt of it. I do not think the obstruction ever occurs more than for a tide, and that is from extraordinary circumstances, where there is a heavy gale of wind or large arrivals.

1257. Mr. *Warburton.*] Since the construction of St. Katherine's docks does not a very large proportion of the vessels endeavour to ascend high up the river, which before were accustomed to unload either in the river or in docks below?—Certainly.

1258. Does not that occasion a necessity for clearing the Pool to a greater extent than it was accustomed to be cleared, prior to the construction of St. Katherine's

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rine's docks?—Certainly; but the principal cause of the obstruction at present is the introduction of so many steam-vessels navigating the river, with and against the tide, and meeting vessels that are driving across the tide, that would require a wider space for the navigation, and by introducing those very large vessels so high up which are towed principally by steam-boats, with and against the tide. Those are very instrumental in causing the obstruction.

1259. Would the best mode of meeting the difficulty be putting down the speed of the steam-boats, or making the passage for ships wider than it has hitherto been?—I think if the passage was made wider than it is at present, there is little doubt it would make a finer high road; but by making that passage so wide, you would throw an immense deal of coasting trade out of the port. It would keep them from coming up to their usual places of discharge.

1260. The *Lord Mayor.*] Owing to the rapid rate at which steam-boats usually come up, is the damage by the swell very material?—Very material.

1261. Mr. *Young.*] Do many instances occur of ships coming up with the intention of going to St. Katherine's docks, and being prevented going into them, and being obliged to return?—I have never known an instance of the kind.

1262. Mr. *Warburton.*] Have you known a detention for a tide or two?—I recollect once a vessel was detained; in fact I stopped her, for there was a large fleet, about 200 sail of vessels and craft coming up, and if she had proceeded down the Pool at that time, she must have come in contact with vessels coming up the Pool, and she would have put a complete stoppage to the navigation during the whole of that flood tide.

1263. Are the ships that go up to the St. Katherine's dock towed by steam; have they usually steam-vessels alongside of them, or are they towed?—Sometimes; but frequently they have steam-vessels alongside of them.

1264. The *Lord Mayor.*] It is now, I believe, a usual thing for all large ships almost to be towed up the river by steam-boats?—It is.

1265. And ships of 600 or 700 tons, which were never known to proceed beyond perhaps the West India docks, now proceed up to the London and St. Katherine's docks?—They do.

1266. They are frequently or almost invariably towed up by steam-boats?—They are.

1267. And necessarily take up a large portion of the river?—A large vessel of about 500 tons, bound up to one of the docks, with a steamer on each side, will take up a space of about 100 feet; two steamers, one on each side, and the ship itself. The ship itself, we calculate about 40 feet, and the two steamers 30 each.

1268. They very rarely tow a ship up now by warps?—Sometimes; but frequently by lashing a steamer alongside.

1269. By two steamers, one on each side?—Yes.

1270. The formation of St. Katherine's docks has induced a larger number of large vessels to proceed up the river, and consequently a wider space is required?—Yes.

1271. I asked you as to the state of the river in 1795. Since that time has not the number of ships frequenting the port of London more than doubled?—It certainly has. I think from the return that was made in the year 1796, there were 11,000 sail. In 1834, I believe, there were upwards of 25,000; and I think by a late return, they have amounted to at least 31,000; I understand the return has been laid before this Committee.

1272. What is the state of the Pool now, compared with its state in 1795?—In 1795, as I mentioned before, I was detained two days in coming up, and I do not believe now there is an obstruction for more than a tide. In fact, I have never seen an obstruction last a whole tide.

1273. Notwithstanding the great increase in the number of ships?—No.

1274. What has been the principle upon which you have acted since the regulation of the port has been under your control as superintending harbour-master; was it to keep open as clear a navigation as possible, to give every accommodation to the trade of the port?—Those were my orders to the junior harbour-master.

1275. Why have you not been able at all times to keep open the space of

300 feet clear?—It generally arose from large arrivals of vessels in fleets, and from strong gales of wind driving vessels from their moorings.

1276. You consider the state of the law to be very inefficient?—I certainly think so; I think the harbour-masters ought to be invested with more power than they have at present.

1277. Is not the power in the 9th section of the Act of 10 Geo. 4 sufficient for that purpose?—I think not.

1278. Is it not because the penalty is against the owner, and not the captain of the vessel or the vessel itself?—That is partly the case.

1279. And therefore it rarely happens that you can convict them?—It is very difficult to get hold of the owner. We had one instance where I moved a vessel by a pilot. We moved her at an expense of upwards of 70 *l.*, which the city solicitor was never able to recover. The parties put me at defiance. I gave him notice to move; he did not do it, and I moved the vessel, I think, four times. It was a large Dutch vessel, the Battavier, of 195 feet long.

1280. Have you laid several informations against the owners of vessels for not removing according to your orders?—I have.

1281. Have the parties been convicted?—Some have, and some have not; the late city solicitor has told me it was for want of sufficient power.

1282. Have any complaints been made against the harbour-masters to the authorities, of obstructions in the navigation of the Pool?—There have been several, but it has principally been, as I said before, from one party.

1283. Have any been made except by the St. Katherine's Dock Company?—I do not recollect any, except in one instance. A man at Limehouse, of the name of Dawson, a ship builder, complained of some light colliers; he found a difficulty in taking a ship into dock, and I went down immediately, and gave an order that they should not lie opposite his dock.

1284. How many complaints have been made by the St. Katherine's Dock Company against the harbour-masters?—It is impossible to say; it would puzzle anybody.

1285. A great many, then?—A number. They frequently made complaints to me, and I am confident 11 times out of 12, when I have examined them, it has been without foundation or cause. They complained to me that there was not room for vessels to go through the Pool, when there has been a large ship of 500 or 600 tons, with a steamer lashed on each side of her.

1286. Do you know of the evidence given before the Select Committee on Steam Navigation in 1831?—I was present.

1287. Did you give evidence before that Committee?—I did. It was respecting the steam navigation of the river Thames.

1288. On a bill that was introduced?—It was a bill introduced by Col. Sibthorpe, I believe.

1289. Are the Committee to understand that the grievances complained of have not been general, but confined to one body, the St. Katherine's Dock Company; as to the non-efficiency of the harbour service, have the complaints been generally made by the St. Katherine's Dock Company, and not by any other?—I never heard of any other complaint than from them.

1290. Have they had every accommodation afforded to them provided for in the Act of Parliament?—I have endeavoured to give them as much accommodation as possible consistently with the general interest of the port. Since they have introduced a large class of vessels up the river, I have felt very anxious for their safety, for on a falling tide, if they had grounded, I considered it would be attended with great danger, and I thought the underwriters ought to be protected. I have felt so anxious, seeing such large vessels come up, that I have gone ahead of them myself, and removed barges and different craft out the way till I have seen them into the dock, and Sir John Hall has frequently thanked me for my services.

1291. Has any preference been given by the committee of the corporation to the business of the navigation above bridge over that of the port below bridge?—I am not aware of any.

1292. Has it not occurred that committees have often met upon the business of the port only?—Frequently.

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1293. Do the committee, in your opinion, act with a view to the general good, fairly and independently?—I think most decidedly they do.

1294. Do you consider that the Lord Mayor has power to remove or suspend you under the 10 Geo. 4, for sufficient cause, and 39 Geo. 3, to dismiss you upon a certificate from the elder brethren of the Trinity-house?—Certainly, the Lord Mayor has sufficient power.

1295. Then you are not exempt from the control of the authorities?—Certainly not; most decidedly not.

1296. And whenever the Lord Mayor for the time being, or the navigation committee have given you orders, have you carried those orders strictly into effect?—Certainly, as far as it has been practicable.

1297. If anybody has stated you dictate to the Lord Mayor and corporation of London, they are mistaken?—No doubt of it; I have never given my opinion, either to the Lord Mayor or the harbour-masters, without I have been asked for it.

1298. *Chairman.*] I suppose your experience in matters connected with the navigation of the river is such as both the Lord Mayor and the navigation committee may not be supposed to have?—No doubt of it.

1299. And they may frequently make appeals to your knowledge, in order to be guided themselves, as to the manner in which they shall issue their regulations?—Yes; and when there has been any difficult point, they have consulted me upon it, and I have given them my opinion. They have had other nautical people up.

1300. The *Lord Mayor.*] Was not the obstruction to the navigation in the Pools, in the years 1824 and 1825, greater than it has been subsequently?—I think not; I think nearly the same. I believe it is the general opinion of all nautical people well acquainted with the river, that the navigation, considering the immense traffic, has been generally as good as could be expected. I know on my part every exertion has been made to keep the navigation clear.

1301. Do you think any obstructions have been caused by bringing large vessels higher up the river, by towing them with steam-vessels?—I think the principal cause of obstruction is introducing those large vessels so high up the river, and steamers running up and down at all times of the tide.

1302. Were not a considerable number of tiers displaced, in order to make the entrances into St. Katherine's docks?—Yes, five tiers.

1303. How many vessels?—On the average about 41 sail.

1304. How often do they change their berth during the year?—From a week to 10 days is the average.

1305. That would make nearly 1,000 vessels in the course of the year that have been displaced for the entrance of St. Katherine's dock?—Somewhere about that.

1306. Do you know the total number of vessels received into St. Katherine's dock last year?—I do not.

1307. Have the vessels taken into St. Katherine's dock assisted to clear the Pool?—I should say, decidedly not; because the vessels that go into St. Katherine's dock come out of other docks. Coasters generally lie in the Pool, and small vessels from foreign ports; but the vessels that St. Katherine's dock take in are from other docks.

1308. Is there not a considerable number of large steam-vessels in the foreign trade that load and unload in the stream?—Numbers. I have made out a list for the information of the Committee, of steam-vessels that arrive and sail in the Upper Pool. The first are coasters, and the others are vessels in the foreign trade. The coasting vessels amount to 70, and the foreign vessels, 24, making a total of 94 sail of steam-vessels, sailing and arriving in the Upper Pool.

[*The List was put in, as follows*:]

A LIST of STEAM-VESSELS that Arrive and Sail from the *Pool*.

Coasters.

NAMES.	Where Running.	Place of Delivery.
City of Aberdeen	Aberdeen	Alderman's Tier.
Queen of Scotland	Ditto	
Duke of Wellington	Ditto	
Lee	Cork	Alderman's Tier.
Emerald	Ditto	
Hercules	Ditto	
Herald	Ditto	
Eclipse	Dartmouth	Cotton's wharf, Tooley-street,
Dover Castle	Dover	St. Katherine's wharf.
Water Witch	Ditto	
Thames	Dublin	East-lane.
Shannon	Ditto	
William Fawcett	Ditto	
City of Londonderry	Ditto	
Perth	Dundee	Hoare's wharf, Wapping.
Dundee	Ditto	
Duchess Sutherland	Ditto	Downe's wharf, Wapping.
Connubia	Exeter	Alderman's Tier.
Zephyr	Ditto	
Diamond	Gravesend	London-bridge wharf.
Pearl	Ditto	
Brilliant	Ditto	
Kent	Ditto	
Gem	Ditto	
Mercury	Ditto	
Planet	Ditto	
Star	Ditto	
Comet	Ditto	
Royal Tar	Greenwich	Fresh wharf, Billingsgate.
Greenwich	Ditto	
Water Lily	Ditto	
Gipsy	Ditto	
Dolphin	Ditto	
Rapid	Ditto	
City of Canterbury	Herne Bay	Nicholson's whf. Billingsgate.
Red Rover	Ditto	
Yorkshireman	Hull	Wool quay.
Gazelle	Ditto	
Water Witch	Ditto	Beal's wharf, Tooley-street.
Vivid	Ditto	
Enterprise	Ditto	Wool quay.
Monarch	Ditto	
Ipswich	Ipswich	St. Katherine's wharf.
Royal William	Leith	Ditto.
Princess Victoria	Ditto	
Royal Adelaide	Ditto	
Magnet	Margate	London-bridge wharf.
Albion	Ditto	
Dart	Ditto	
Venus	Ditto	
Fame	Ditto	
Hero	Ditto	
Royal William	Ditto	
Royal Adelaide	Ditto	
Royal George	Ditto	
City of London	Ramsgate	Ditto.
Emerald	Ditto	Nicholson's whf.
Princess Victoria	Sheerness	Ditto.
Duke of Sussex	Ditto	
Rose	Ditto	
Majestic	Stockton	London-bridge wharf.
Norra Chreena	Waterford	East-lane.
St. Patrick	Ditto	Davis's wharf, Southwark.
Margaret	Ditto	
Naiad	Woolwich	Hungerford strs.
Fairy	Ditto	
Sylph	Ditto	
Nymph	Ditto	
William the Fourth	Whitstable	Dyer's wharf.
Courier	Yarmouth	St. Katherine's.

A LIST of STEAM-VESSELS that Arrive and Sail from the *Upper Pool*.

Foreign.

NAMES.	Where Running.	Place of Delivery.
Tourist	Antwerp	Custom-house.
Attwood	Ditto	
Princess Victoria	Ditto	Iron-gate.
Harlequin	Boulogne	Tower.
Brocklebank	Ditto	
Royal Sovereign	Ditto	Fresh wharf.
William Jolliffe	Calais	Tower.
Lord Melville	Ditto	
Calpe	Lisbon	Tower.
Transit	Ditto	
Essex	Ditto	East-lane.
Liverpool	Ditto	
Glasgow	Ditto	
Manchester	Ditto	
John Bull	Hamburgh	Custom-house.
City of Hamburgh	Ditto	
Britannia	Ditto	
Columbine	Ditto	
Earl Liverpool	Ostend	Ditto.
London Merchant	Rotterdam	Ditto.
Ramona	Ditto	
Sir Edward Banks	Ditto	
Battavier	Ditto	East-lane.
Queen Adelaide	Havre	Iron-gate.

TOTAL, STEAM-VESSELS, *Coasting* - - - - 70

Ditto - - ditto - - *Foreign* - - - - 24

GRAND TOAL - - - 94

Harbour-Master's Office, St. Katherine's, 15th June 1836.

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1309. And most of those bring cargoes?—Part of the coasting vessels bring cargoes and passengers; the foreign vessels all bring cargoes and passengers.

1310. And do they all unload in the stream?—Generally; a vessel from Stockton loads and discharges at London Bridge wharf; and three steamers, the Royal Victoria, Adelaide and William, discharge part of their cargoes at St. Katherine's steam-wharf and the rest into craft.

1311. There is no accommodation for any of these steam-vessels by means of docks in the port of London?—No.

1312. Do you think it desirable that docks should be formed?—It would relieve the Pool very much.

1313. Mr. *Angerstein.*] Does this return include the river steam-boats?—The whole of the steam-boats that go in the Upper Pool. The foreign steam-trade is increasing; the whole of them discharge in the Pool. There is a great part of the trade from Gibraltar, Cadiz, Lisbon, Oporto, Antwerp, Rotterdam and Hamburgh, which is carried by steam.

1314. The *Lord Mayor.*] All of which discharge in the stream?—The greater part discharge in the stream of the river.

1315. What was the average clear passage kept through the Pools previously to the year 1829?—We used to calculate if we had 200 feet, in fact less, it was sufficient; there was no kind of complaint made, and I do not recollect seeing any stoppage, without there has been a gale of wind or large arrivals.

1316. Since that period has the passage of 300 feet been kept as far as practicable?—Decidedly, so far as practicable.

1317. Have you in innumerable instances allowed from 21 to 28 colliers to be moored in certain tiers in which 18 and sometimes 20 only were allowed by the bye-laws?—Not in innumerable instances; it has occurred at times, but very rarely.

1318. State your reasons for having allowed it at any time?—From the large arrivals, and from the want of other situations for the harbour-masters to berth the vessels in, and from the violence of the wind. I have seen two tiers get foul of each other; sometimes we have had 30, and the moment the weather moderated they were re-moored and placed according to the number the bye-laws allowed; it was merely from casualties, from unavoidable casualties.

1319. Do you mean to say, that if any evidence has been given before the Select Committee of Steam Navigation, that you have designedly allowed more than the number of vessels that the bye-laws stated to moor, it is true?—Decidedly not; it has occurred at times for the reasons I have before stated.

1320. Therefore if the Committee came to any resolution reflecting upon the conduct of the harbour-masters upon such evidence, it was unmerited?—Decidedly; and we felt extremely hurt at it.

1321. Have you uniformly endeavoured to carry the orders of the Lord Mayor, the port committee, and the Trinity-house into effect?—We have used every exertion to that effect.

1322. Have you, in any of your reports to the port committee, designated those orders as "harsh and unnecessary?"—The harbour-masters have not represented it as their opinion; but it has been the opinion of the trade unloading in the port. It has not been the harbour-masters who have said it, but the masters of vessels and people that have been concerned in the trade.

1323. When the order was made, on the 12th April 1833, to keep the clear passage of 300 feet, did you make any such report to the port committee?—I did.

1324. Did you, in any report to the committee, make use of such terms as that their orders were harsh and unnecessary?—I mentioned that; but, as I stated before, it was from statements made by masters and owners of vessels.

1325. Have not the port committee, at the instance of Sir John Hall, made several long and laborious investigations upon the state of the port of London?—They have.

1326. Have not the shipowners, the coalowners, and almost every interest in the port of London, except the St. Katherine's docks, expressed themselves satisfied with the general arrangements of the port of London?—They have.

1327. Are you acquainted with any circumstances respecting the memorial said to be signed by 5,700 of the leading merchants, shipowners, bankers, traders and others?—I am.

1328. State them to the committee.—I recollect being an eye-witness of some

some of the means by which signatures were obtained. There was a table at the St. Katherine's dock steam-wharf, with a parchment lying upon it, and every one that went in or out of a steam-boat was invited to sign it; there were papers laid about different warehouses, which all the porters signed; and I have been informed that there was a person who went round in the neighbourhood with those papers to get signatures; in fact, I heard that a party got half-a-crown a 100 for doing it.

1329. Mr. *Crawford.*] Who told you so?—A wharfinger of the name of Hosee.

1330. What did he tell you?—He told me that several parties, tradesmen, I think, in the Minories, had told him that there was a man employed.

1331. Who gave you the information?—A wharfinger named Hosee, at the Scotch wharf, Miller's wharf.

1332. He said he saw this?—I understood him he could prove it.

1333. Did he say that he saw it, or that somebody told him he saw it?—Somebody told him.

1334. Mr. *Angerstein.*] It was not produced to him to sign it?—They came to him to sign it, and he refused; he said he would not lend himself to any job of the kind. I think, with the exception of a few respectable parties, it would be a difficult thing to find out the other parties.

1335. The *Lord Mayor.*] Are the Committee to understand that you saw a document purporting to be that petition at the St. Katherine's steam-wharf, and that passengers as they came to and from steam-boats were invited to sign it?—I was a witness to that; I saw it on the table. I know the passengers who go by steam are always anxious to go as fast as they can, and they would make no difficulty in signing a thing of that kind.

1336. Have the Trinity-house, upon any representations, removed any shoals below London-bridge?—Yes, they have.

1337. The Trinity-house decline to remove any shoal, unless they can dispose of the material which they raise, for ballast?—They have invariably done so.

1338. Do you consider that the depth of the river has decreased of late years?—I think not. Perhaps it would be worth while to tell you one particular shoal they have removed on the representation of the harbour-masters and the port committee. One shoal that lay 200 feet below London-bridge, extending nearly across the river 75 feet, was dry, and I have walked upon it. Within this last twelvemonth they have removed that shoal, and made from 11 to 15 feet water where it was dry. The material was very bad, in fact they had great difficulty in disposing of it. The quantity of the stuff that was raised from that was upwards of 400,000 tons taken away from that one shoal.

1339. Mr. *Angerstein.*] Did they empty that in other parts of the river, or leave it on shore?—It was delivered into vessels for ballast.

1340. The *Lord Mayor.*] You state that you and your colleagues as harbour-masters, have invariably, as far as it has been in your power, kept a clear passage of 300 feet?—They have, most decidedly.

1341. And when that 300 feet has not been kept clear, it has been from accidental circumstances occasioned by large arrivals, or the state of the weather?—Yes.

1342. Mr. *Angerstein.*] Has any greater vigilance been exercised for the last three months for keeping the river clear?—The same for the last three months as in fact since the year 1829.

1343. Do you mean to say no alteration has taken place within a short period?—There has been as much attention paid in keeping the navigation clear within the last three months as before.

1344. Any greater?—Not to my knowledge; we have always done it prior to this as well as we do now.

1345. Mr. *Crawford.*] Has the Pool kept more clear within the last three months than before?—I conceive so, and I will state why; at this period of the year a considerable part of the vessels in the coal trade go on foreign voyages, to the Baltic and North America, which has reduced the number of the large class of vessels in the coal trade. The large class of vessels draw more water than the others, and frequently to keep them afloat they have been obliged to anchor within the line of 300 feet. At this season of the year there are fewer vessels in the coal trade than in the autumn, winter or spring. There is not that supply required.

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1346. I think I heard that you were superintending harbour-master?—Principal or superintendent, it is the same thing.

1347. Have you any authority over the other harbour-masters?—I have.

1348. They are subject to your orders?—No doubt of it.

1349. You are subject to the orders of the port committee?—And the Lord Mayor.

1350. He is *ex-officio* chairman; therefore any orders you receive from the Lord Mayor or from the chairman of the port committee you consider it your duty to obey?—No doubt of it.

1351. Have you had, within the mayoralty of his lordship, any instructions personally from himself?—I have had instructions from his lordship to use my exertions in complying with the by-laws and keeping the river clean.

1352. Has his lordship ever visited the Pool to your knowledge?—I saw his lordship once there; I met him in the Pool once when he came down, and I believe his lordship saw the state of the navigation at that time, and was perfectly satisfied with it.

1353. Did his Lordship tell you for what purpose he came there?—I understood it was, if I do not mistake, from a representation from our old friends the St. Katherine's Dock Company.

1354. Did his Lordship tell you for what purpose he came?—To look at the Pool; to make his observations, I understood.

1355. Do I understand you to say he was perfectly satisfied with the condition it was in?—I think so; he expressed himself to me that the Pool was in a very good state.

1356. Where did this interview take place?—It was in the Lower Pool; somewhere below Rotherhithe.

1357. Had you at any time any other interview with his Lordship?—Yes, I had, once.

1358. Where?—At the harbour-master's office.

1359. For what purpose did his Lordship come there on that occasion?—To communicate with the harbour-master.

1360. Did you understand he had previously sought the harbour-masters upon the river?—No, I did not understand anything of the kind.

1361. Did he then come to the office for the purpose of communicating with you?—I understood it was to see for the harbour-masters. He wished to see one of them.

1362. You did not understand that his Lordship had been upon the river before he came there?—His Lordship told me he had.

1363. Who did his Lordship happen to find at that time in the office upon the river?—I was there present.

1364. Were there any other harbour-masters?—Mr. Mayott had been there, but he was gone.

1365. How did it happen that you were at that particular time engaged in the office?—I had just returned from Guildhall. They had been discussing the new bye-laws that were to be brought forward, and I was requested by the chairman of the navigation committee to be at Guildhall in attendance.

1366. At what time of the day was this, and at what state of the tide?—I think I returned from Guildhall about half-past two, as nearly as I can recollect.

1367. And what state of the tide was it?—It was nearly the last part of the flood. The tide had about an hour or an hour and a half to run up.

1368. What month was it?—I have not a memorandum of it, but I could refer to it; I cannot exactly tell.

1369. That is peculiarly the state of the tide when the Pool would require watching?—Yes.

1370. Did the Lord Mayor communicate to you that an accident had happened in the Pool?—He said something about a barge being sunk.

1371. Did it appear there was no harbour-master in the Pool at that time?—There was a harbour-master. Mr. Mayott had been in the Lower Pool, and he reported to me that all the colliers were put into tiers, and he was going up to attend at the tiers in the upper part of the Pool.

1372. Though the flood-tide had yet to run for more than an hour the harbour-master considered his duty done there, and that he was at liberty to go away?—No, he had left one part of the Pool to visit the other. He had not left the river.

1373. You consider, on the flood-tide, that the part of the river that requires the most active attention of the harbour-masters is the Pools?—No doubt.

1374. Then, as long as the flood-tide is running, that ought to be under the personal view of some harbour-master?—Yes.

1375. Before the flood-tide had done that harbour-master came away?—He came to the office to me to report that he had berthed all the colliers that were coming up in the lower part of the Pool, and, he was going to the Upper Pool to see that everything was arranged there.

1376. Do you think that no blame attaches to the want of the presence of a harbour-master at this time of the tide when the accident that the Lord Mayor reported to you occurred?—It is impossible for the harbour-master to be at all parts of the Pool at once; it is a distance of two miles and a half.

1377. In point of fact, was he in the office with you when the Lord Mayor came there?—He had been there; but he had left previously.

1378. How long had he been with you?—About a quarter of an hour or 20 minutes.

1379. And how long had he left you?—He had been gone perhaps about a quarter of an hour. He said he was going over to Pickle Herring, to see that the vessels there were properly berthed.

1380. Have you any recollection of the accident that the Lord Mayor personally reported to you as harbour-master, which had taken place that day?—That a barge had been sunk.

1381. Was that the first intimation you had of the accident?—It was.

1382. Did the Lord Mayor express any dissatisfaction at the absence of the harbour-master from the Pool on that occasion?—He said at the time he had not seen the harbour-master.

1383. He expressed his dissatisfaction that there was no harbour-master there?—He said he had not seen one. I told him where the harbour-master had gone.

1384. Mr. *Labouchere.*] Is it an usual occurrence to leave the lower part of the Pool without a harbour-master, for the space of an hour, in such a state of the tide as you have described?—Perhaps it would be as well for me to explain the state of the Pool at the time. The colliers on their arrival are stopped at Greenwich till the coals are sold; a list comes down from the coal-market, stating the names of the vessels which are sold, and the harbour-masters give them permission to come up into the Pool. They generally come up the first part of the tide, and are berthed in the Lower Pool. Generally two hours after flood has made the colliers have arrived, and they are put into their proper berths; the coasting vessels proceed higher up the river. After the harbour-master has berthed the colliers in the Lower Pool, he proceeds to the upper part of the district to see the coasting vessels that arrive berthed.

1385. What you have stated appears hardly a direct answer to the question I put. I want to know whether you consider that it is generally right that the Lower Pool should be left without the presence of a harbour-master, in such a state of the tide as was the case at the time this accident happened?—It depends on circumstances.

1386. But do you think under any circumstances it is right and safe that the Lower Pool should be left without the presence of the harbour-master at flood-tide for an hour?—It depends a great deal on circumstances; it depends a great deal upon the arrival of vessels; sometimes the vessels are all up at the first of the flood; at other times not more than three or four vessels are up altogether.

1387. On this particular occasion adverted to, do you consider the state of the Pool to have been such as to warrant the absence of a harbour-master from the Lower Pool at that time?—Yes; because the colliers were all berthed in the Lower Pool before he left it.

1388. *Chairman.*] Are the Committee to understand that the harbour-masters have a correct mode of knowing what number of vessels are to enter the Pool on each flood tide?—The colliers which are to be berthed in the Lower Pool.

1389. Mr. *Warburton.*] With regard to other vessels; what means have you of knowing what other vessels will be there, unless the harbour-master be present?—The Lower Pool is appropriated to colliers. We know the number coming

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coming up, and when those colliers come up and are berthed, the harbour-master proceeds to the other station to see it regulated.

1390. Mr. *Labouchere.*] Are there any regulations that prescribe to the harbour-masters the state of the tide at which they are allowed to leave the Pool?—Yes, the bye-laws say that they shall be upon duty from low-water till two hours after high-water.

1391. Do you conceive those regulations to have been infringed upon the occasion adverted to, when an accident happened in the lower part of the Pool, and no harbour-master was present?—I think they were not infringed at the time.

1392. *Chairman.*] It appears that the regulations are, that the harbour-masters shall be on duty in the Lower Pool from the time of low-water till two hours after high-water?—It does not say in the Lower Pool; it is from Lime-house to London Bridge. It does not say in the Lower Pool, but that he shall be on duty.

1393. Mr. *Crawford.*] That is, that the two harbour-masters shall be on duty?—Yes; but the Committee will recollect that the stations are divided. There is one station from Bugsby's-hole to Limehouse, the other is from Lime-house to London Bridge.

1394. Mr. *Warburton.*] To whom do these orders apply; to all the harbour-masters?—Except the superintending harbour-master.

1395. That is, to all except yourself?—All except myself.

1396. Mr. *Williams.*] Do the harbour-masters take their duty alternately, or are they all four on duty at the same time?—No; I have the general superintendence of the harbour-service. There are three other harbour-masters; one of the others attends from London Bridge to Limehouse, the other from Lime-house down to near Woolwich. I go afloat on the flood-tide and on the ebb, and when I know that there are a number of vessels coming up I am invariably in the Pools, where there is most work to be done, to assist the harbour-master in the upper station. The third harbour-master is off duty, or goes occasionally when there are any repairs to the mooring-chains going on.

1397. How many harbour-masters are required to be on duty at the same time, from low-water to two hours after flood?—Two.

1398. Were there two on duty on the day of the Lord Mayor's visit?—There was.

1399. Where were they stationed?—One was stationed between London Bridge and Limehouse, and the other between Limehouse and Bugsby's-hole.

1400. Captain *Alsager.*] Was he afloat?—Yes.

1401. I thought you said a little while ago that he was in the office?—He came and made his report to me, and then went afloat again.

1402. Mr. *Crawford.*] Is it usual for the harbour-master to come each tide and report to you that he has berthed the colliers?—Sometimes he does, and sometimes he does not.

1403. Then his coming to the office and making that report was an accidental circumstance rather than a regular point of duty?—It depends on the work they have in the river. They come to me occasionally to know whether I have any orders to give them.

1404. Mr. *Warburton.*] Did he come to regale himself with you on that day?—He had a lunch with me. I had come from Guildhall, and was having a lunch, and I asked him to partake of it.

1405. And how long do you say he staid with you?—I believe it might be about a quarter of an hour or 20 minutes.

1406. Capt. *Alsager.*] Do you not think he would have been better attending to his duty in the river till the time prescribed by the regulations had expired, instead of being in the office?—I do not think that at that time he could have done much, for at the time he came to me there was nothing moving; he told me he had berthed all the vessels.

1407. How could it be that there was nothing moving when there was an accident happened?—I believe it was from a ship coming out of the London dock.

1408. Mr. *Williams.*] Was it necessary for him at that time to come to your office?—I do not say that it was actually necessary; but when there is little doing in the river they call upon me occasionally to know whether I have any orders

orders to give them. From the different arrivals and the different vessels going it is necessary occasionally to communicate.

1409. Mr. Alderman *Thompson.*] Did you go to the Pool after Mr. Mayott left you?—I did.

1410. Did you see him subsequently that day?—Yes.

1411. Where did you see him in the Pool after he had left you and partaken of your luncheon?—I met him down in the Lower Pool when I went down to see that everything was right.

1412. Having reported to you that all the colliers were safely moored, what took him back again to the Lower Pool?—He went to see when the downward bound were going, in order that he might give them every facility for going out.

1413. What necessity could there have been for that, when it was an hour befor ^high water; vessels could not move then, could they?—I beg your pardon; vessels go in and out of St. Katherine's Dock occasionally with a steamer each side of them at nearly all times of tide.

1414. Mr. *Young.*] Was it after high water that you saw him down in the Lower Pool?—I saw him there three quarters of an hour before high water.

1415. Capt. *Alsager.*] You have stated that moorings, sufficient to accommodate 40 vessels, have been removed for the purposes of the St. Katherine's docks?—Yes.

1416. And you have stated that those vessels average from a week to 10 days delivering and receiving their cargoes?—Yes.

1417. Then throughout the year 1,200 or 1,400 vessels have to seek accommodation elsewhere on that account?—Certainly.

1418. Are the coasters and other vessels coming up the river in general attentive to the orders of the harbour-masters?—The coasters generally are.

1419. And the colliers?—I cannot say that the colliers are; we have a great deal of trouble with them.

1420. Can you state what you conceive to be the best method of enforcing the regulations?—I think if there was a penalty on the masters of vessels for disobeying the orders of the harbour masters, a great deal of obstruction might be prevented.

1421. Can you suggest any summary mode of proceeding?—The only summary mode is to lay an information before a magistrate, and convict them there.

1422. That is 12 hours, is it not?—The Act of Parliament says that the harbour-masters shall have the power of removing them in a reasonable time; and the bye-laws say that that reasonable time shall be 12 hours. These people are perfectly aware of it; and when a harbour-master gives them an order to go into a tier, they know that we cannot convict them under 12 hours.

1423. Mr. *Crawford.*] In point of fact, this inconvenience is occasioned by the interpretation which the bye-law gives to the Parliamentary enactment?—Decidedly.

1424. Have you ever given any public opinion as to the space which ought to be left for the clear highway in the Pool?—I have.

1425. What distance have you stated to be proper for such a purpose?—I have stated that 200 feet, at low water, would be sufficient; it will be remembered it is at low water, because as the tide flows the water-way widens.

1426. Do you mean that you have recommended 200 feet as being, in your opinion, sufficient in contradistinction to 300 feet, the width according to the bye-laws?—I only recommended that in order to give accommodation for every trade.

1427. Do you consider that 200 feet is a sufficient space for the easy, safe, and proper navigation of the river Thames by all ships that have to pass up and down?—It is 200 feet at low water, which gives more as the tide flows. I have seen vessels of all descriptions passing when there has been 200 feet, and they never found any difficulty.

1428. You are understood to have said that the very circumstance of steam-vessels being used on each side of ships coming up makes it necessary to have a greater width in the Pool?—Certainly.

1429. And now that greater width is required in consequence of large ships coming up with steam-vessels alongside of them, you think that, without disadvantage to the navigation of the river you can contract the distance from

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300 to 200 feet?—I should prefer having 600; but from the number of vessels and the immense traffic of the port of London it is impossible.

1430. We are not asking your opinion as to what would be advantageous with reference to all the interests of the river, but what would be safe for the navigation of the river; therefore the question is, whether you consider that with the increased impediments, which in your former answer you state to arise from the great increase of steam navigation, the distance may be advantageously contracted to 200 feet?—I think the 200 feet is sufficient.

1431. With your knowledge of the river, do you consider that you could take charge of a vessel of 500 or 600 tons, so as to bring her through the Pool with safety and certainty, with 200 feet left clear?—I certainly should think it sufficient; and any competent pilot, or any person who understands his business, would be perfectly satisfied with that space.

1432. Mr. *Williams.*] You stated just now that it will require 100 feet for a vessel to come up the river towed by two steam-vessels; then supposing that one was coming up the river and the other going down, the whole space would be occupied by those two vessels?—But I have not approved of the plan of a steam-vessel on each side; it is in fact like a tier moving.

1433. You have stated to the Committee that a vessel towed up the river by two steam-vessels, which is a common occurrence, would occupy a space of 100 feet; then if it happened that there was one vessel going down and another coming up, each vessel being towed by two steam-boats, the whole space of 200 feet which you say is sufficient, would be occupied?—No doubt. If you have two vessels, each vessel having a steamer on each side of her, 200 feet would not be sufficient; but I have never seen such a thing. It is only in certain parts of the Pool that there is this space of 200 feet; other parts generally average about 400 feet, and if the vessels were to see each other approaching, one of them would stop in the wide space till the other had passed, and then proceed.

1434. Supposing a sailing vessel happened to be between them?—They would give way to each other.

1435. Mr. *Crawford.*] With that explanation do you consider 200 feet to be sufficient?—Most decidedly.

1436. Mr. *Young.*] May not vessels be brought up by steam without having a steam-boat lashed on each side of her?—No doubt of it; and they take up less space by that means.

1437. As a remedy for the inconvenience to which you have just referred, would you recommend that the practice of lashing two steamers alongside the ship should be discontinued, or would you remove other vessels out of the port to allow room for their being towed in that way?—I should say they ought to be allowed only to have one steamer.

1438. The *Lord Mayor.*] The Committee are to understand that you consider 200 feet would be sufficient width at low-water?—I do.

1439. Is there any traffic on the river by large ships at low-water?—Not by vessels of any draught of water; at low-water you never see any large vessels moving.

1440. Can a vessel drawing 14 or 15 feet of water, come up the river with any degree of safety at low-water?—Certainly not; and it would be a most improper thing to attempt to move a large vessel on a falling tide at all.

1441. You never see any large vessel of 300 or 400 tons burthen moving at that period of the tide?—No, certainly not.

1442. Then the fact is, that 200 feet at low-water, is sufficient width for all the traffic on the river at that particular time of the tide?—I think it is.

1443. Mr. *Williams.*] What width do you consider to be sufficient at flood-tide?—I should think from 250 to 300 feet would be quite sufficient.

1444. Do you mean that if a passage of 200 feet is sufficient during low-water, you can upon the tide flooding increase that passage to 250 feet without confusion?—I think so; as the tide flows the water-way widens.

1445. You have stated that you received no complaints from anybody except the St. Katherine's docks?—I do not recollect any, except one.

1446. Are you the proper person to whom complaints should be made, or the port of London committee?—Both. If I am on the river and there is anything wrong, and any one wishes to make a complaint, they would, of course, complain to me.

1447. Have

1447. Have you not received statements from the port of London committee that complaints have been made of the narrowness of the water-way in the river?—I have: but I have always understood that it came from St. Katherine's dock, through Sir John Hall.

1448. Have you not had such complaints frequently made to you by the port of London committee?—It has been from the St. Katherine's dock.

1449. Has not the port of London committee made frequent complaints to you on that account?—Yes: but whenever a complaint has been made, an explanation has been given by the harbour-masters, which has been satisfactory.

1450. Did not the St. Katherine's dock company make a complaint last year?—They did of a large American vessel called the Tarento running foul of a vessel coming up the river.

1451. You have stated that you do not consider that any extraordinary alteration has taken place in the state of the river during the last three months?—There has been the usual exertion used.

1452. Now it is wished that you should be very particular in answering this question. Has not the Lord Mayor, within the last six or seven weeks, made a personal complaint to you, and insisted on a passage of 300 feet being kept?—He has.

1453. And have you not attended to it?—Certainly.

1454. And that was not the case before?—Yes; whenever we saw an opportunity we have done so.

1455. Do not the bye-laws state that you shall always keep 300 feet waterway?—Yes; but every person who is conversant with nautical affairs, knows that it is not always practicable.

1456. Are not the bye-laws made for your guidance and government?—They are.

1457. Do you not feel bound to obey them?—Yes, and we do obey them as far as practicable.

1458. Has not the passage very frequently been as narrow as 150 feet to your knowledge?—It has been so; but not very frequently.

1459. During a perfect calm?—No; it has been from the state of the weather.

1460. Have you known it frequently 200 feet during a perfect calm upon the river?—Yes, and frequently 300.

1461. How was it that you allowed the bye-law to be infringed, by narrowing the passage from 300 feet to 200 feet?—Some time ago there were great complaints made by the coal trade, of want of accommodation to supply the metropolis with coals. The coal committee met at Guildhall, and the chairman of the navigation committee had myself and one of the harbour-masters up, to complain of this; and he said "You will put an additional number of vessels to the tiers which is in my report to the committee." The month afterwards, when I reported what the chairman had done to meet the wishes of the coal trade, the committee appeared to me to be satisfied at the time, and we put those two or three extra vessels in the tiers in consequence of that communication; but no evil resulted from it; I do not recollect that any vessels got foul of the tiers.

1462. Mr. *Warburton.*] Was this done at the very time that the bye-law was in force?—Yes.

1463. Mr. *Williams.*] Who made these bye-laws; the common council or the port of London committee?—They were drawn up by the port of London committee; they were carried to the Trinity-house, where they were sanctioned, and the common council confirmed them.

1464. So that you and the chairman of the coal committee felt yourselves justified in violating this law, made under the sanction of the Trinity-house?—The Act of Parliament requires the harbour-masters to obey all orders they shall receive from the port committee or the Lord Mayor, or such committee as shall be appointed; but I found out afterwards that neither the Lord Mayor nor the port committee can legally give an order contrary to those bye-laws.

1465. The *Lord Mayor.*] Was not that order given by Mr. Tickner, on his own authority and responsibility, without the cognizance of the Lord Mayor?—Yes.

1466. Mr. *Crawford.*] Did you at that time offer any opinion to Mr. Tickner,

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as chairman of the committee, that this infringement of the bye-law might be made without any inconvenience to the public?—I never gave any opinion upon it, because I was not asked. The port committee were in the habit of giving us directions, and we obeyed them.

1467. Did you give to Mr. Tickner, the chairman of the port committee, any information as to the probable width to be occupied by the colliers and by the barges that would have occasion to come there?—He did not ask me respecting the width of the 300 feet; but his object appeared to me to be to give greater accommodation to the coal trade. Of course, I distinctly stated to him that the navigation would be narrowed by doing it.

1468. The *Lord Mayor.*] Do not the coal trade complain very much now of the want of accommodation in the river?—They do; and I believe, from the returns which I have made to the Committee, they will see the number of vessels daily detained and prevented from coming up. I am confident that the price of coals has been kept up in consequence of the want of sufficient accommodation for the coal trade in the port where they are delivered.

1469. Mr. *Crawford.*] Do you believe now that the colliers are delivered with as much expedition when they come up as can be conveniently done?—I think so. From the observations I have made they frequently work 200 ton of coals out in a day; and I think the average time for a collier delivering is about seven days, and since the weighing of coals has been introduced, they are delivered much quicker than they used to be when they were measured.

1470. Mr. *Williams.*] You have stated that you have violated the bye-laws, in consequence of a communication with Mr. Tickner and some others. How do you reconcile acting under Mr. Tickner's authority with a statement that you have carried the orders of the Lord Mayor and the Port Committee into effect on all occasions, and that there was no ground of complaint of your exercising authority, or objecting to act under the authority of the Lord Mayor and the Navigation Committee?—We always carry into effect the orders we receive from the Lord Mayor and the committee; but in the instance alluded to it was an arrangement made by Mr. Tickner, who directed the harbour-masters to carry it into effect. I reported it to the committee, in fact, before I carried it into effect, and Mr. Tickner got up and made an explanation, and said, that in consequence of the want of accommodation expressed by the coal trade, he had taken upon himself to make this alteration, and he requested that the committee would confirm it.

1471. Did they confirm it?—They perfectly agreed with what Mr. Tickner had done. In fact there were no orders given for me to act contrary to his directions.

1472. Do you think it is practicable to keep a passage of 300 feet of water-way in the river according to the present regulation?—I think it is most difficult. It may be done sometimes when there are few vessels in the river; but taking it all together I think it almost impracticable.

1473. Have you not kept a passage of 300 feet clear during the last six weeks, in consequence of express injunctions which you have received from the Lord Mayor?—Not in consequence of that, but from the small number of vessels which have arrived. The same exertions have been used as were used formerly.

1474. But you have a perfect power of regulating vessels in their tiers?—Yes.

1475. And if you have not room for them, you can order them to remain below?—Yes; keep them at Greenwich.

1476. So that if you were to perform your duty strictly, you could always keep a clear passage of 300 feet?—Not always. It often happens that coasters or vessels bound into the docks or quays come up to a certain point just at the top of the tide. It would not be proper to send them down to Greenwich, and they are obliged to hang on outside the tiers till the next flood makes. There has been no inconvenience found to result from that. Every one practically acquainted with the river knows that that is the custom of the river.

1477. Have not many accidents happened in consequence of the crowded state of the Pool?—I think very few, considering the immense traffic there is.

1478. But they have happened owing to the crowded state of the Pool?—From the number of vessels coming up, and the accommodation required to be given to them.

1479. You stated that 18 accidents happened in the river, but that any person was mistaken who imputed those accidents to the crowded state of the Pool; how do you reconcile that?—Those accidents have arisen from steam-vessels, and out of the 18 there have been only seven in the Pool.

1480. If there had been a greater space for the steam-boats, would not the liability to accident have been considerably lessened?—The danger of obstruction, but not of accidents.

1481. But the larger space there is kept clear, the better opportunity people in boats have of getting away from the steamers; is not that so?—It is not from boats coming in contact with the steam-boats that accidents arise, but from the swell.

1482. Mr. *Young.*] Do you know what proportion of the accidents have occurred in the Pool, and what below?—Seven out of the 18 have occurred in the Pool.

1483. The narrow part of the navigation exclusively is the Pool?—Yes.

1484. Mr. *Williams.*] The Committee understand you distinctly to state that you have made no alteration at all in the arrangements in the Pool during the last six or seven weeks, in consequence of instructions given to you by the Lord Mayor, with a view to keep a clear space of 300 feet?—Certainly, there has been, as I stated before, more space kept than there was before.

1485. The question you are asked is, whether you have, or have not, paid more attention to keeping a clear water-way of 300 feet within the last six or seven weeks, in consequence of express instructions given to you by the Lord Mayor, and in consequence of the Lord Mayor insisting on that being done?—From the express instructions of the Trinity-house; the Lord Mayor has given us directions to use every endeavour to obey the bye-laws.

1486. Has he not insisted on your obeying them; and has he not given you the strictest injunctions to that effect?—Yes; and in consequence of that we have not put additional ships in the tiers, as Mr. Tickner directed us.

1487. Mr. Alderman *Thompson.*] You have alluded to instructions from the Trinity-board; state the nature of those instructions, and how they were communicated to you.—I have received instructions from the Trinity-house to meet them at the Trinity-house, myself and the harbour-masters, in consequence of a complaint that had been made by Sir John Hall.

1488. What passed upon that occasion?—Sir John Hall made a statement that there were certain vessels in the tiers more than the bye-laws allowed; the harbour-masters agreed that it was the case, but they offered to bring proof to show that it was unavoidable at that time. At that time a violent hurricane had occurred, and the collier tiers got intermixed; till the wind moderated we could not attempt to move a vessel, for some of their anchors and cables were fouled, and it required lighters and craft to get them clear; but the moment the weather moderated they were put to rights. I was there myself to assist them, and we got them arranged again in tiers, according to the bye-laws, as soon as possible.

1489. Do you recollect a complaint being made against the harbour-masters relating to the crowded state of the Pools, before the elder brethren of the Trinity-house, and a summons being sent to you and the other harbour-masters, directing your attendance there?—I do.

1490. Did the elder brethren of the Trinity-house enter upon that complaint?—They did.

1491. Was evidence produced on the part of the complainant, who, I believe, was Sir John Hall?—He produced, I think, three of his own people from the docks to prove his statement.

1492. He produced three witnesses?—I think it was three.

1493. Three persons who, you say, were employed by the St. Katherine's Dock Company?—I think they were servants of the company.

1494. All of them?—Except one pilot, who had charge of the vessel at the time, and who was the cause of the accident.

1495. Then if a pilot was examined who had charge of the vessel which was injured, or which suffered inconvenience from the state of the Pool, you must be incorrect in stating that the witnesses examined were the servants of the St. Katherine's Dock Company?—I think three of the witnesses were servants of the St. Katherine's Dock Company, and one was the pilot of the vessel which had got on shore.

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1496. What was the name of the pilot, and what was the name of the vessel?—The Medora was the name of the vessel, and the pilot's name was Smith.

1497. What was the nature of the complaint which was made?—It was in consequence of the crowded state of the Pool. Two vessels were coming up with the flood-tide when he was going down against the flood, and he put the vessel on shore; she run into shoal water on the south-side of the river, to avoid the two vessels which were coming up; and at the same time he said that if he had been aware that it blew such a hurricane at the time, he would not have gone out of the St. Katherine's docks, because he considered that it was attended with danger.

1498. Do you mean to say the pilot stated that he would not have gone out of the St. Katherine's docks if he had been aware that the wind blew so strong?—Most decidedly.

1499. Did the ship receive any damage?—I am not aware that she did.

1500. What was the open space where she went ashore?—One hundred and sixty feet, as near as possible.

1501. Do you give evidence that it was 160 feet, or was it less than that?—It is some time ago since it occurred, but from what I recollect, I think it might be about that.

1502. You are sure it was not 120?—I cannot be certain; merely from the practice I have had, I consider it was about that.

1503. Who appeared besides yourself?—The harbour-masters.

1504. The whole of them?—The whole of them.

1505. And you stated the occasion of the river being so crowded at that particular period of time?—I did.

1506. What was the conclusion to which the elder brethren came after hearing the whole of the case?—They heard Sir John Hall the complainant, and the evidence that he brought forward.

1507. To what conclusion did the elder brethren of the Trinity-house come, when they had heard the case of each party?—They came to the conclusion, that if we did not produce evidence to show why those occurrences took place, or why such was the state of the Pool, they would feel bound to represent the business to the Lord Mayor, and recommend that the harbour-masters should be dismissed.

1508. Did you produce such evidence?—I offered to produce witnesses, and upon my offering to produce witnesses, Sir John Hall said, "We do not wish to press the case now." He said he would withdraw the complaint; I offered to produce witnesses, but on Sir John Hall saying he would withdraw the complaint, they went no further in it; but still they told the harbour-masters that if they did not use their exertions, that is, they directed them to use their exertions to put the bye-laws in force, and said that if it was proved hereafter that the harbour-masters had wilfully failed to keep the space open, it would be their duty to recommend the Lord Mayor to dismiss them; that is what occurred. At the same time Sir John Hall said, "I expect that the harbour-masters will use their exertions to put the bye-laws in force, and upon those conditions I will go no further in the business."

1509. In point of fact, after the Trinity-board had heard Sir John Hall, and had heard the harbour-masters, did they not state that if Sir John Hall pressed the case, they would feel it their duty to represent the neglect of duty on the part of the harbour-masters to the Lord Mayor, and call upon him to exercise that jurisdiction with which the law has invested him in regard to controlling the harbour-masters?—They certainly did state that; but at the same time they said that they would hear evidence given by the harbour-masters to disprove what Sir John Hall said.

1510. In point of fact, did not Sir John Hall say that he would not press the case further, upon the harbour-masters assuring him and assuring the Trinity-board, that the like occasion of complaint should not again occur?—The harbour-masters said they would do as they always had done, endeavour to serve the public and keep the place clear.

1511. That is not an answer to the question. Did the harbour-masters, or did they not, assure the elder brethren of the Trinity-house, and Sir John Hall, that if the matter was not further pressed, occasion of similar complaint should not again arise?—I do not recollect anything of that kind; I do not think that that occurred.

1512. You say that that did not occur?—I do not recollect it.

1513. But being a matter of so much importance, as it affects your own character as the principal harbour-master, and as it affects the other harbour-masters, it must have been in your recollection if such a thing had occurred?—I have stated before what has occurred according to my recollection.

1514. The *Lord Mayor*.] When Sir John Hall made his complaint to the elder brethren of the Trinity-house about the Medora getting on shore, were not these the circumstances, that when you asked to be allowed to produce witnesses to state that it was from an accidental circumstance, and not from neglect of the harbour-masters, the elder brethren of the Trinity-house stated, that if Sir John Hall proved his case when your witnesses were heard, they should feel it their duty to represent your conduct to the Lord Mayor, with a view to your dismissal?—That is exactly the way in which I understood it.

1515. And when Sir John Hall found that the penalty would be your dismissal, he stated that he had no wish to press the charge further, and therefore you did not bring any witnesses to answer the case, but the thing was permitted to drop by Sir John withdrawing his complaint, you having stated that you would to the best of your ability take care that the bye-laws were carried into effect?—Exactly.

1516. He withdrew the thing without any solicitation on your part?—Most decidedly. We never asked him to withdraw it.

1517. Mr. *Angerstein*.] Have not the bye-laws been better carried into effect since that period?—There has been a greater space for the navigation since that period than there was before, in consequence of there not being so many coal vessels.

1518. Is it the fact or not that the bye-laws have been better carried into effect?—Within the last three months there certainly has been a clearer Pool than I have seen for some time; but that has arisen from the causes I have stated.

1519. Mr. Alderman *Thompson*.] Have you not exerted yourself more to keep 300 feet clear, than you did previous to that hearing before the Trinity board?—I cannot say, I think so; for there is the same attention paid now as there was before.

1520. *Chairman*.] Describe the state of the weather when the Medora went ashore?—It blew so hard that the Scotch smacks, which are in the habit of going in all weathers, would not sail that day, in consequence of the blustering state of the river. It was, I believe, the last three days in March; and I think such weather had not been experienced on the coast of England, or in the river, for a long time.

1521. The *Lord Mayor*.] This vessel went ashore?—Yes.

1522. The pilot put her on shore to prevent her coming into collision with other vessels?—That was the case.

1523. With those two vessels that were coming up?—Yes.

1524. She was going down against the tide; do you recollect what her cargo was?—I believe it was a general cargo. She went out of the St. Katherine's dock, and I believe she was going to Sydney.

1525. Was she injured at all?—Not that I heard of.

1526. Did she not proceed on her voyage?—Yes, the moment she floated.

1527. Mr. *Warburton*.] What are the salaries and emoluments of your office?—The senior harbour-master has 500 *l*. a year. In conclusion to the Lord Mayor's questions, I may be allowed to state that the pilot, before the Trinity-house, said that the man had the helm aport instead of starboard.

1528. Now will you state what are the salaries and emoluments of your office?—The first harbour-master has 500 *l*. a year; the next 400 *l*.; the next 350; and the other 300 *l*.

1529. Does that include the whole of the emoluments of the office?—I myself live in the harbour-master's office, which the committee find me at St. Katherine's.

1530. Are there any fees besides?—No fees at all.

1531. Are you allowed to hold any other office together with that?—No; neither are we allowed to enter into any other business.

1532. You have stated that there has been a great increase of late years in the tonnage of vessels frequenting the port of London, and you were understood

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stood to state that of late years it has increased up to 31,000?—I understand that that was the return laid before the committee.

1533. What increased proportion of vessels frequenting the port of London, go into dock, that formerly, before the construction of docks, were obliged to lie in the river?—I have mentioned that in the year 1796, before any docks were established, there were 11,000 on the average in the Pool. In 1834, there were upwards of 25,000, 4,000 of which, or between 4,000 and 5,000, nearly 5,000, go into the docks.

1534. Do you mean to say you know, from any accurate returns, that not more than 5,000 go into the docks?—I think it is from a return made by Sir John Hall himself. It would give 10,000 more vessels discharging in the Pool than there were in 1796; and this last year, I understand, they are still further increased.

1535. The *Lord Mayor.*] Are you aware of any increase in coals this year?—I think there are 550 more sail of colliers this year than last.

1536. Mr. Alderman *Thompson.*] Since you have kept these 300 feet clear in the Pool, have you had any complaint from the coal factors of want of accommodation?—No.

1537. Have you had any complaint from any other quarter?—Yes, from the General Steam Navigation Company in the upper part of the Pool.

1538. From any body else?—We have had complaints from vessels that we have kept out of the Pools.

1539. How many vessels have the General Steam Navigation Company generally lying in the Pool?—I have put a return here.

1540. Have they generally five or six lying there at a time?—More than that.

1541. Ten or twelve?—There may be at times.

1542. Have you ever had any conversation with Mr. Blenkarne about the state of the Pools?—No, I have not.

1543. Mr. Blenkarne has never complained to you?—I never recollect any complaint from him but once; but that was not a complaint of the Pool. There was a tier of vessels, principally in the Irish trade, and he wished that tier to be removed, to give accommodation for steamers using his wharf.

1544. When I say Mr. Blenkarne, I mean he or his partner, Mr. Nell or Mr. Jackson?—Mr. Nell and I have had conferences together respecting the shoals about London Bridge, and I have told him that where he thought the water could be deepened, I should be happy to represent it to the Trinity board, and request them to do it.

1545. But they have never complained to you of the want of sufficient space?—Not that I know of.

1546. Is it not part of your duty to report to the port committee with regard to any shoals which you may discover in that part of the river which is within your superintendence?—It is.

1547. How often do you take your soundings?—It depends on circumstances; sometimes the harbour-masters take them in one part of the river and sometimes in another. I have generally sounded myself every spring tide. I cannot say I have done so every one.

1548. Have you made any report to the port committee lately, about the discovery of any shoals?—No.

1549. Are you aware of a shoal having lately appeared opposite Hanover-tier?—No; I understood Sir John Hall had found a shoal there, and I went down to find it, but there was nothing of the kind; in fact, the water was rather deeper than it was formerly.

1550. Are you not aware that about 10 days ago a vessel got ashore near Hanover-tier?—A small vessel touched the shore on the north side, near Newcrane.

1551. Opposite Hanover-tier?—Yes.

1552. Were you aware of that shoal?—Perfectly.

1553. Had you reported it to the port committee?—I went to the Trinity-house and told them as they were working their lighters they might come and work on that shoal, but still they agreed with me that there was just the same water that there always was. However, since I mentioned it yesterday, I saw one craft working there, but he was working in 14 feet of water, which we had before.

1554. When

1554. When did you make this representation to the Trinity-house?—I made a representation, that Sir John Hall had found out a shoal, but I did not know where it was. That was the representation I made; and I went and surveyed the river, which I found to be in the same state as it always had been.

1555. You did not find the shoal?—It has always been shoal water there.

1556. What induced you to represent that it was necessary to remove it?—I did not represent that it was necessary to remove it; I told them that Sir John Hall had found out a shoal, and that I could not find it; and I believe that to keep in with him they sent a lighter to humour him or to keep him quiet.

1557. Be good enough to read a letter [*handing a letter to the witness*].—"Trinity-house, London, 16th June 1836. Sir, I have laid before the elder brethren of this corporation your letter of the 9th instant, respecting the formation of a shoal of sand off New-crane dock, and am directed to acquaint you, for the information of the directors of the St. Katherine dock company, that some of this corporation's ballast lighters have been ordered to work in that situation for the purpose of removing the accumulation which appears to have taken place, should the material of which it consists prove fit for the ballasting of ships. I am, &c. *J. Herbert.*"

1558. From the contents of that letter, does it not appear to your mind that there must be an accumulation of either gravel or mud, or something of that kind?—From the tenor of that letter it would appear so.

1559. Which was right, you or the corporation of the Trinity-house?—I do not know that the corporation of the Trinity sounded there.

1560. *Chairman.*] Do you know the specific spot where this shoal is said to exist?—Yes.

1561. What distance of time elapsed between your last soundings and your former soundings on that spot?—I generally sound right through the channel; frequently, perhaps once a fortnight or once in three weeks; it depends upon circumstances. I think it occurred about 10 or 12 days before. I began from London-bridge, and went through the channel, and found no difference at all in the water, except in the channel off St. Katherine's dock, and there I think we had a foot more than in other places.

1562. In the course of your progress down the river, can you confidently say you sounded upon the spot where the shoal is said to exist?—Not at that time, but I sounded afterwards, and found the same soundings as we had for years.

1563. Mr. *Warburton.*] It was not in consequence of your representations, then, that the corporation of the Trinity-house engaged to send their ballast-lighters to work the shoal away, but it was in consequence of the representations of Sir John Hall?—Very likely; but I had a communication with one of the elder brethren of the Trinity-house, who directs the working of the lighters, and I told him what Sir John Hall had done. He asked me what kind of stuff it was. I told him it was sand; and he said he would send a ballast-lighter there.

1564. The *Lord Mayor.*] If it had been mud would the Trinity-house have noticed it?—No.

1565. Was it at low water that the vessel you have spoken of got on shore?—Very near, it was a small coasting vessel. It arose from the man's own negligence.

1566. It might have happened to anybody who did not show more care?—It might.

1567. In fact there was no obstruction in the river at the time?—No; there was the same channel as before.

1568. Do you mean to say that you have sounded that part of the river several times within the last few months?—Yes.

1569. And after the vessel got on shore you sounded it?—Yes.

1570. And on that part which is now said to be a shoal, did you find when you sounded it last the same depth of water as you found when you sounded it prior to the accident?—The same as it had been for years.

1571. Mr. *Warburton.*] Do you keep any records of the soundings you take; do you enter them in a book?—Certainly not. If we find a decrease of water, then we represent it.

1572. Do you undertake to say that you can remember from year to year, in figures, the soundings you have taken in each particular place, without

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entering them in a book?— We have a plan or chart with the soundings on it; and I generally put in a memorandum-book as we go along the different parts of the river. We know pretty well what the soundings are; and when I come to the office I generally compare the soundings I have taken with the chart, and when I find there has been no alteration I take no further notice of it; and if there is any alteration, then we report it. Here is a plan here of the soundings at Deptford.

[*The Witness delivered in the plan.*]

1573. Can you produce anything to show what were the soundings you took, as you say, some years ago on this shoal opposite Hanover tier, and can you state what the soundings are at present?—I can. In consequence of what Sir John Hall said I went and surveyed it, and have got the plan.

1574. Will you produce the old soundings and present soundings?—I can.

1575. Mr. Alderman *Thompson.*] Notwithstanding this letter which you have read from the Trinity board, dated yesterday, you still remain of opinion that there is no greater accumulation now opposite Hanover tier than there has been for several years past?—I think decidedly that there is no greater accumulation than there was before.

1576. Mr. *Angerstein.*] I wish to ask you whether you do not think great benefit would arise from the harbour-master living constantly afloat at the mouth of the Pool?—Constantly afloat!

Lunæ, 20° die Junii, 1836.

MEMBERS PRESENT.

Mr. Warburton.	Captain Alsager.
Mr. Alderman Thompson.	Mr. John Crawford.
Mr. Angerstein.	

MR. WARBURTON, IN THE CHAIR.

[The City Remembrancer presented a petition signed by 5,700, which had been delivered to the Corporation of the City of London.]

Captain *John Fisher,* called in; and further Examined.

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1577. Mr. Alderman *Thompson.*] IS this the petition to which you alluded in your evidence on Friday as the petition which was signed by the servants and labourers of St. Katherine's Dock Company, and by persons landing from steam-boats?—I believe it is.

1578. Are you acquainted with the names of some of the leading merchants and shipowners of the city of London?—I am.

1579. Will you look at this list (*a list being handed to the witness*)?—I think 160, or thereabouts, are very respectable merchants and shipowners; I did not doubt that.

1580. Will you look at that list; in that list are there the names of the principal merchants and shipowners of the city of London?—As far as I know some of them are. I am not acquainted with all of them; there are very few that I am acquainted with; there are Messrs. Barings, and a great many more.

1581. Messrs. Buckle & Co.?—Yes.

1582. Bell & Grant, Cox, Hersch & Co.?—I am not acquainted with them.

1583. Cockerell & Co.?—I am not acquainted with them.

1584. Do

1584. De Castra & Co.?—No.

1585. Forbes & Co.?—I know that there is that house.

1586. John Gore & Co.?—Yes.

1587. Gladstanes & Co., Frederick Hutk & Co., H. B. Hawes, Haviside & Co., Jackson & Sons, Morris, Prevost & Sons, John Pirie & Co., Phillips & Tiplady, Rawson, Rawson & Co., Joseph Soames, Thomson Bonar & Co., Wilson & Co., Wilcox & Anderson; are these considerable merchants and shipowners of the city of London?—I believe they are.

1588. Then how do you reconcile the answer which you gave on a former day that this petition was mainly got up by Sir John Hall, and signed by the labourers and servants of the St. Katherine's Dock Company?—I said partly signed. I believe there was a considerable number of merchants and shipowners that signed; but I know that others signed; in fact, where they could get signatures.

1589. Does not that fact which has appeared of many of the principal shipowners and merchants having signed that petition for a passage way of the space of 300 feet, show that there are many persons desirous of maintaining a space of 300 feet clear in the Pool?—My opinion is, that those parties who have signed would not have signed it if they had not been asked.

1590. What induces you to entertain that opinion?—Because I never heard any one dissatisfied with the breadth of the navigable channel of the river.

1591. *Chairman.*] With what navigable breadth?—Sometimes it has been broader and sometimes narrower.

1592. You say you never heard them dissatisfied with the navigable breadth; with what breadth?—The usual breadth.

1593. What breadth?—It varies according to circumstances.

1594. How can a man express a dissatisfaction upon a thing which, according to your statement, is entirely indefinite?—I think if it had not been wide enough for the purposes of the navigation, complaints would have been made to the harbour-masters to remedy it.

1595. Is not this petition proof that they were dissatisfied; would they sign that petition if they were satisfied?—I fancy that they wish to have the 300 feet; there is no doubt of that by their signing it.

1596. Then they would be dissatisfied with anything less than 300 feet?—I should think so; I have seen less, and seen no difficulty in navigating with that.

1597. Mr. Alderman *Thompson.*] Does not the law require you to keep 300 feet clear?—Yes.

1598. And have you not promised the elder brethren of the Trinity-house to maintain that?—As far as practicable.

1599. Did you not unequivocally promise that you would maintain 300 feet clear passage-way on the occasion of the complaint being made respecting the Medora?—As far as the harbour-masters can.

1600. This is the paper put in by the Select Committee of the Port of London, signed "John Fisher, Charles Rowland, and William Mayott," three of the harbour-masters, dated June the 2nd, 1835: "Resolved, that it be represented to the worshipful the Thames Navigation and Port of London Committee, in consequence of the numerous complaints made by merchants and shipowners of the want of accommodation for vessels in the Pools, and the insufficient space for the trade of the port of London, and bearing in mind the vast increase in steam-navigation, and the prospect of a continued increase of the foreign steam-vessels, carrying His Majesty's Post-office mails, being without proper accommodation, we feel it our imperative duty to represent the same to your worshipful committee, and earnestly to suggest an application to the Lords Commissioners of the Admiralty for the removal of His Majesty's ship Perseus, lately employed as a receiving vessel?"—Yes, that report was made.

1601. Does not that show to you that you must have had numerous complaints from merchants and shipowners from the want of accommodation in the Pool?—It was for want of accommodation for berths for them to lie, but not for want of passage in the Pool; it was for want of space in the Pool for carrying on the regular trade.

1602. Do you mean to say that those numerous complaints alluded to by

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merchants and shipowners, were not merchants and shipowners who were not in the habit of sending their ships into the London and St. Katherine's docks ?—That alludes to vessels that were discharging and unloading in the river, and to the want of accommodation; in consequence of our being compelled to keep this wide space for navigation, a great deal of accommodation was taken away from the shipping that loaded and discharged in the river.

1603. Will you be good enough to mention by name some of the numerous merchants and shipowners that complained ?—A principal part on board the vessels; I am sure I do not recollect them at present, but it used to be a common complaint, when we were ordering them not to go into particular tiers, that they considered that they had not proper accommodation.

1604. Is it usual for a merchant to be on board a ship when she is coming up the Pool ?—Some of the masters of vessels are owners of vessels.

1605. But you do not call a master of one of the small trading vessels, which are moored in the Pool, a merchant ?—No, certainly not.

1606. You are in the habit of attending the several meetings of the port of London committee ?—I am.

1607. Do you remember a memorial being presented to that body by Mr. Alderman Thomas Wood, signed by a great many of the pilots residing at Gravesend, and navigating ships through the Pool ?—I recollect there was something of that kind.

1608. Was this on the 24th of January last, the memorial which is printed in page 146 of the evidence taken before the port of London committee, and signed by 35 river pilots ?—Yes.

1609. It was on the 31st of March that the Medora got on shore ?—I believe it was.

1610. Who was on duty upon that occasion ?—Mr. Cousins.

1611. Do you happen to recollect at what time the flood-tide was ?—I think the tide flowed somewhere about half-past 12, from 12 to half-past 12, because I came up on the latter part of the flood myself; the Medora passed me when I was at Rotherhithe.

1612. Do you happen to know that Mr. Cousins was on duty during the hours required by the bye-laws ?—He stated to me that he was on duty, and I have no doubt that he was; there was a violent gale of wind at that time, he told me that he had nearly got his boat swamped in Limehouse Reach, and therefore he must have been on duty.

1613. Is it untrue that it was represented to the elder brethren of the Trinity-house, upon an inquiry that was instituted with respect to the Medora, that no harbour-master was on duty ?—I do not recollect that at the time; it might have been so, but I do not recollect it.

1614. Do you recollect receiving that letter from Sir John Hall; have the goodness to read it [*a letter being handed to the Witness.*] ?—Yes.

1615. Will you read it out aloud ?—"Sir, I am instructed by the board of directors of the St. Katherine Dock Company, with reference to the state of the Pool yesterday, to request you will inform me the name of the harbour-master on duty at the upper station yesterday, during flood-tide, and the first two hours after high water. The board are informed, that at the time the Medora went on shore, the passage through the lower Pools, from the great excess of colliers in the tiers beyond the number allowed by the bye-laws, was narrowed to about 120 feet, and that from the time of the ship taking the ground, no harbour-master was in attendance or made his appearance, except a casual visit made by you about three hours after she had been on shore, in consequence of your having received information of the accident from the dock-master of the company. If the harbour-master on duty has any explanation to offer in respect to the number of colliers in the tiers, the state of the Pool, and his absence upon the occasion referred to, the board of directors will be happy to receive it."

1616. Did you receive such a letter ?—Yes, there is no doubt of it; I have a copy of it.

1617. Mr. *Angerstein.*] What is the date of that letter ?—The 1st of April.

1618. Mr. Alderman *Thompson.*] Will you read the answer ?—This is the letter to Sir John Hall, from myself: "Sir, I have to acknowledge the receipt of your letter of the 1st instant, and in reply have to state, that the harbour-masters do not consider themselves amenable to you or the St. Katherine Dock Company for the detail of the performance of their duties, or can they be responsible

sible for any inefficient acts of pilots and other persons. The state of the weather on the day in question was such, that no person who had any regard for the safety of the property of the underwriters or shipowner would have attempted to move any ship from her moorings."

1619. Captain *Alsager*.] What was the name of the pilot?—Smith; he was not accustomed to such large vessels.

1620. Mr. Alderman *Thompson*.] Do you happen to know how many ships were on the tiers at that time beyond the number allowed by law?—I was down in the Pool just before the vessel came down, but it was blowing so tremendously hard that the greatest part of the tiers were all mixed; it was difficult to count them; they brought their anchors home, and they got into one complete mass of vessels; when the weather moderated it took them the best part of two tides to get their anchors, and re-moor.

1621. The question is, can you tell the Committee how many ships were there beyond the number allowed by law?—I have stated that it was impossible to tell from the mixture of the vessels.

1622. Did you attempt to find out?—Yes, I did.

1623. Were there, instead of 18, 26 in some of the tiers?—The tiers were so mixed that it was impossible to tell the number, for there were two tiers laid together; it is very likely there might have been.

1624. Do you happen to recollect how many colliers there were in the Pool at that time?—No.

1625. Were there more than 190?—I am not exactly certain; I cannot say the number.

1626. Did you not admit that there were as many as 20 and 27 in a tier upon the investigation before the Trinity-house?—I then stated to the Trinity-house what I have stated to this honourable Committee, that the tiers were so completely mixed in consequence of the vessels bringing their anchors home in the gale of wind, that it was a most difficult thing to ascertain.

1627. Did you represent to the Lord Mayor or the port committee that you had been summoned before the Trinity-house in consequence of the state of the river?—After the investigation took place I made a report of what had occurred, to the port committee.

1628. Was that report made without being first called upon by the port committee?—The committee never called for it.

1629. How soon did you make that report after the inquiry?—The next monthly meeting.

1630. How long might that be after the inquiry?—I cannot recollect.

1631. Did you make any representation to the Lord Mayor?—I did not.

1632. Is there not a sub-committee whose duty it is to give directions in case of any circumstance occurring of emergency, where it would be inconvenient to wait till the assembling of the general committee at the end of the month?—I called upon the chairman of the sub-committee to state that, and he was out of town.

1633. *Chairman*.] Who was that?—Mr. Bridge.

1634. Mr. Alderman *Thompson*.] Was the subject of your letter to Sir John Hall, in answer to his, submitted to the port of London committee?—It was.

1635. Did they approve of that answer?—They thought that I might have been a little more courteous, that was their answer.

1636. Was that the answer?—I think it was; the Lord Mayor passed a censure upon the harbour-masters for the letter to Sir John Hall; they said that they thought we might have been a little more courteous.

1637. Is not this a correct statement of the proceedings upon that occasion: "Saturday 23d April 1836, Resolved unanimously—That this committee having before them a letter dated April 1st, written by Sir John Hall to Captain Fisher, by order of the board of directors of the St. Katherine dock company, regarding the state of the Pool, on the 31st of March, and the answer given (without any communication to this committee) by Captain Fisher thereto, are of opinion that the said answer of Captain Fisher appears to this committee to be extremely improper, and deserving the censure of this committee, and that Captain Fisher be reproved accordingly, and admonished to be more careful in future; Captain Fisher being called in and asked whether he had consulted the other harbour-masters previously to writing the letter of the 2d instant to Sir John Hall, stated that he did. Resolved and ordered, that the other

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other harbour-masters be called in; and the other harbour-masters being called in (in their presence), the right honourable the Lord Mayor being in the chair of the committee, reproved Captain Fisher agreeably to the foregoing resolution, and admonished the harbour-masters to be more careful in their conduct in future." Did that take place?—Yes, the harbour-masters were called in certainly, and that is, I believe, a copy of what passed.

1638. Do you know a person of the name of John Scott, a waterman of Bell-wharf-stairs?—Yes; I think he is a son of a man that was a waterman of one of our boats.

1639. Had you any communication with him with respect to the Medora?—No, I had not.

1640. Do you know whether any of the other harbour-masters had?—I do not know.

1641. It was not communicated to you if they had?—No.

1642. Are you aware that that man was to have given evidence before the elder brethren of the Trinity-house touching what he saw?—I am not.

1643. Are you aware that there was a meeting held in November last, consisting of the shipowners, owners of steam-vessels, wharfingers and owners of property abutting upon the Thames, at the City of London tavern?—I learned it from the public papers.

1644. Did you see any representation made to the port committee or the court of common council as the result of that meeting?—I did not; I was not aware that there had been any.

1645. Are you aware that such a meeting was held?—Yes, I saw it in the papers; I know nothing more of it.

1646. Are you aware that the society of merchants trading to the Continent made a representation to the port of London committee upon the state of the Pool?—I was not aware of that.

1647. You delivered in an account, dated the 29th of February, being an account of the soundings in the river? [*a Paper being handed to the Witness*]—Yes, we did.

1648. Will you look at the soundings at New Crane-wharf; is there any shoal marked upon that return?—There is not.

1649. How is it that that shoal is not marked upon that return, inasmuch as you stated on Friday last that that shoal had existed, to your knowledge, for three years?—We do not call it a shoal, but more a bank of the river than a shoal.

1650. Do you mean to say that the soundings set forth in that return were accurately given in on the 29th of February?—I think so; we took a great deal of pains in taking the soundings.

1651. Have you made any application to the Trinity board to have that shoal taken up?—We have; it is a kind of abutment; it goes a short distance into the river.

1652. *Chairman.*] Whatever it is, is it noticed under that return of soundings that you delivered in?—It is not; we consider it more a bank of the river than anything else.

1653. And yet you thought it necessary since to apply to have that removed?—I considered it would be an improvement to have it removed; the Trinity-house tried to remove it; they took up five or six loads of it.

1654. Are you aware that they had two ballast-lighters at work upon this shoal on Saturday last?—No, considerably outside of the shoal, in 12 feet water.

1655. Do you mean to tell the Committee that two Trinity-house lighters were not working upon that shoal on Saturday last?—They were working more in the channel; when I saw them they were not upon the shoal, they were rather more to the southward.

1656. Did you make any application to the Trinity board to work in any particular place, when you saw them working?—I went to the Trinity-house and told them that I understood that Sir John Hall had made some complaint respecting the shoal, and it was the place I had recommended them to work upon; but the materials were so bad that they could not take them up; it lies near the edge of the river.

1657. And yet you found them working at it?—No, outside of it.

1658. In deep water?—Yes.

1659. Mr. *Angerstein.*] What does the Trinity-house consider as bad?—Whatever vessels will not take for ballast, such as mud and clay; they like gravel.

1660. Mr. Alderman *Thompson.*] When was it that you made application to the Trinity board to send ballasting lighters there?—I think it was three months ago; I called again and asked Captain Ripley, who manages the ballast business, if he would allow the Trinity-house ballast-lighters to work near New Crane, in-shore.

1661. What was the least depth of water, according to your greatest sounding, off New Crane wharf on the 29th of February?—About 10; the lowest is 10, and the highest is 20. Those soundings are taken according to the Trinity standard, which is the average tide between spring and neap; frequently I have seen the tide, I think last January there was a very strong gale of wind, and the tide fell four feet three inches below the Trinity standard.

1662. *Chairman.*] Was that at spring tide?—Yes, at low water spring tide, by the strong gale of wind from the westward; in fact, I never saw so low a tide in the river as that.

1663. Mr. Alderman *Thompson.*] Did you see the vessel that was on the shore there last Wednesday?—I did not; I heard that there had been a small schooner turned up, but it was owing to want of knowledge or caution of the person conducting her.

1664. By whom was that report made to you?—It was mentioned at the office by one of the watermen; but she was off when I went.

1665. *Chairman.*] By whose authority do you say that it was owing to the ignorance or negligence of the pilot?—One of the watermen said that the vessel had gone too far in-shore.

1666. Were you there yourself?—No.

1667. Mr. Alderman *Thompson.*] Were you aware that the sloop drew only eight feet water?—No.

1668. Captain *Alsager.*] You have no right to interfere with the pilot on board the vessel?—No; if that was the case it would be necessary to put a harbour-master on board every ship.

1669. Mr. Alderman *Thompson.*] Was not a representation made by Sir John Hall to the Trinity-house in consequence of the sloop being ashore?—No, not that I am aware of.

1670. Mr. *Angerstein.*] Allusion has been made to the storm that occurred in this spring that created great confusion in the Pool; are you quite sure that the vessels were moored strictly according to the regulations of the port on that day?—They were; but they were broken adrift by the violence of the weather.

1671. Were they strictly moored according to the regulations of the port?—Yes.

1672. Mr. *Crawford.*] There were no more colliers in the tiers than are by law allowed?—I am not aware that there were.

1673. Will you say that there were not?—I cannot say; because it frequently occurs that vessels come up with their cargoes, and the light vessels going away; sometimes they are disappointed in ballast; and it occasionally occurs that they have a few more in the tiers.

1674. *Chairman.*] When did the storm come?—I think it had been blowing for three days very heavy weather.

1675. The 29th, 30th and 31st of August?—Yes.

1676. Is it the practice to bring up loaded colliers before the light ones are moored?—The light vessels haul out and the heavy vessels haul in.

1677. Are not the light vessels required to go on?—Yes; but the day that I allude to the weather was so violent that they could not attempt to move out of the tiers till they got their ballast.

1678. Upon that day did the colliers come up to their moorings?—No, they did not come up. I do not think there was a collier came up that day, it blew so hard; there was only one smack and two or three small vessels.

1679. Then if there were supernumerary colliers in the tiers, they had come up on some previous day?—They did not come up that day.

1680. Will you answer that question?—It is not very likely they could.

1681. Could they have come up at any other time than some previous time?—Not

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—Not in the way that it was blowing; a collier will frequently stand any weather, but when it blows very hard they do not like to move.

1682. Captain *Alsager.*] It happens often that loaded colliers come up with a flood tide in expectation that those that are unloaded will go down to make room for them?—Yes, that is the case.

1683. And light colliers being unable to obtain ballast are afraid to move, and the river, on that account, is more crowded than usual?—Yes.

1684. Was that the cause on that day of the greater number of vessels being in the port than usual?—That was the cause.

1685. Mr. *J. Crawford.*] The cause must have been then, that loaded ships were allowed to come up before empty ships were ready to go away?—Yes, that was the case.

1686. Mr. Alderman *Thompson.*] Have you not what is termed a detention flag?—We have.

1687. Is it not usual for all colliers to remain at Deptford till they are carried up when that detention flag is flying?—They are kept out of the Pool till they get permission from the harbour-master.

1688. Then if that detention flag was flying during this heavy gale, laden ships would not venture into the Pool; into either the Lower or Upper Pool, would they?—As I stated before, the colliers do not care much about weather.

1689. Would you permit a laden ship to come into the Pool when the detention flag is flying?—Certainly not, without she is sold; there is a list sent to the office at Greenwich, from the coal-market, with the number of vessels that are sold.

1690. Then what is the use of your detention flag, if ships come up into the Pools, disregarding that signal?—They never come up into the Pool without the harbour-master's permission; it is regulated by that list which I have mentioned.

1691. Then if there were more ships in the Pools on the 31st of March than are allowed by law, the detention flag could not have been flying at the time that those ships came into the Pool?—The detention flag, I believe, had been flying, with the exception of a very few days, for nearly 12 months; we are obliged to stop every collier at Greenwich that comes up.

1692. *Chairman.*] Was the detention flag flying on that day?—Yes.

1693. Did the ships come up in spite of that?—I am not aware of that; but they came up by permission of the harbour-masters, and I do not think on that day there was one came up.

1694. Captain *Alsager.*] And it is expected that these empty colliers will go down directly the tide ebbs?—That is the case.

1695. Then there are loaded ships that come up with the previous flood to take their stations?—That is the case.

1696. And it sometimes happens, the wind blowing strong up the river from the eastward, they are not able to move for want of ballast?—That is the case.

1697. Consequently the river is more crowded than it would be, owing to those circumstances?—Yes.

1698. *Chairman.*] Was this the cause, on the day when the Medora got on shore, of that number of vessels being in the Pool?—It was.

1699. Mr. *John Crawford.*] Was there a greater number of vessels in the Pool than there ought to have been?—There was, on account of the statement I have made of the light vessels not being able to get away.

1700. Did the Committee misunderstand you just now, when you said that by counting you could not ascertain whether there was an overnumber or not?—It could be hardly ascertained; they were so intermixed we could not tell how many were in one tier and how many in another.

1701. Upon what ground do you say that there were more than were allowed by the law?—I should think, from the statement that I have made, in consequence of those light vessels not going away.

1702. *Chairman.*] Tell the Committee the matter of fact; were there more than were allowed by law or not?—I dare say there were; there is very little doubt of it.

1703. Do you know that there were more?—It is probable that it was so.

1704. Mr. *John Crawford.*] Have not you said that you did not know whether

ther there were or were not?—You could not count the respective tiers, because they were so intermixed.

1705. Mr. *Angerstein.*] Is it not perfectly clear that the harbour-master gave an improper authority for vessels to come up?—He gave the authority in expectation that the others would have gone away.

1706. Was it not an improper authority?—I think not.

1707. Captain *Alsager.*] When the Medora got on shore, she was in charge of a pilot, over whom you had no control and no right to interfere?—Exactly so.

1708. Mr. Alderman *Thompson.*] How many men are you always manned with?—I have four men and a coxswain.

1709. Do you think that there would have been any danger in going through the Pools on the 31st of March in a boat manned by four men and a coxswain?—I do not know that there was any particular danger; but many of the boats were swamped, and we shipped a considerable deal of water.

1710. Have you always four men and a coxswain?—I have always four men, but the coxswain does not always attend, because he is a man that is occasionally employed in drawing plans; he is a very clever, intelligent man; and I steer myself when we have any plans to make out.

1711. Have you given any attention to the construction of a more improved boat, to avoid accidents?—I laid a plan before this Committee on the last day I attended here.

1712. Mr. *Angerstein.*] Do you, as harbour-masters, make use of the boat that you always did, previous to the navigation of the river by steam?—Yes, it is the same description of boat.

1713. Has the removal of the old London Bridge made any alteration in the flow of the tides?—I think the tides in strong winds flow higher and lower than they used to do; but in ordinary tides they are the same.

1714. Captain *Alsager.*] If you were to interfere in preventing the laden colliers coming up the river, in anticipation of the light colliers going down, you would cause great delay in the delivery of the coals for the use of the city of London?—Very great.

1715. Because two tides would intervene between the vessel going down and the full one coming up?—It would.

1716. Mr. Alderman *Thompson.*] Are you aware that at the Thames Tunnel people are throwing stuff into the river?—I am, and I have reported it.

1717. Have you made soundings upon the subject, where they are laying this concrete?—No, it is not concrete; it is merely gravel to fill up the holes.

1718. Is there not lime?—I see no lime; I do not recollect seeing lime.

1719. Have you examined it particularly?—I have not.

1720. Then there may be lime with the gravel which they are throwing down?—I have not seen any.

1721. Have you heard it?—I have not.

1722. Have you made soundings upon the spot where they are throwing down this gravel?—Not lately.

1723. When did you last take any soundings upon it?—I saw a vessel that was laying there about a fortnight ago.

1724. Do you recollect the depth of water that there was at that time?—I think it was from 10 to 11 feet, that was prior to the ballast being thrown overboard.

1725. Have you not made any soundings since?—No.

1726. Then it may not be more than eight feet?—I have no doubt that it is less, but the part of the river where they are throwing the ballast over, is out of the channel, and they have permission from the Lord Mayor to do it.

1727. If they go on, will not a bar be made across the river?—It is only a temporary measure; some time ago, when the water broke in upon them, they had permission from the corporation to throw clay down, the depth was 11 feet, but by the time the clay was deposited, there was only three feet, and after the work was done, the parties sent a machine and brought it to the usual depth; it was a temporary thing.

1728. *Chairman.*] They can take it up by the diving bell?—No, we have got a better plan than that; generally, ballast machines are used; the Trinity-

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house have a steam machine that will bring up at least 100 tons in rather more than half an hour.

1729. Mr. Alderman *Thompson.*] You have represented the circumstance to the Lord Mayor?—Yes; the Lord Mayor has given them permission to throw it overboard over the tunnel, as a temporary measure, but not in the navigable part of the river.

1730. *Chairman.*] And do they put any guard of barges there?—There is one of the old East India hoys used for that purpose.

1731. So that no vessel could run upon that?—No, it lies so far out of the navigation that no vessel has any business there.

1732. It will be their duty to remove it after the work is completed?—Yes, certainly.

1733. Mr. *Angerstein.*] Are you not aware that it will be more important for those parties to sink clay in the navigable channel than on the parts near the shore?—I saw Mr. Brunel upon the subject, and he told me that they preferred throwing loose gravel, because that fell in and filled up the holes, and clay would not do so, but would be one solid mass.

1734. Have you anything to add?—I wish to put this paper in, with the leave of the Committee.

[*The same was delivered in and read as follows:*]

AN ACCOUNT of the PRIVATE MOORINGS or BARGE ROADS on the South-side of the River Thames, and outside of Low-water Mark, with the Names of the original Owners and the present Occupiers, and where the same are situated.

ORIGINAL NAMES.	Present Occupiers' Names.	WHERE SITUATE, AND REMARKS.
Messrs. Merritt & Co.	Mr. James - -	- - Lying between the Lower Tier, Pickle Herring, and Lime-kiln Tier off the "Five Bells or Brooks."
Messrs. Lee & Co. -	- - Messrs. Keene and Addis	- - Lying between the Lime-kiln Tier, and the Upper Corn Hoy Road at Horslydown, off Mark Brown's Wharf.
Messrs. Terry & Co. -	- - Messrs. Goulding and Dunking.	- - Lying below the Second Corn Hoy Road, and off Webster's wharf, Horslydown.
Messrs. Burgess & Co.	Messrs. Burgess & Co.	- - Two roads lying between Goulding's Road, the Garland's Tier, off Horslydown.
Messrs. Knight & Co.	Messrs. Burgess & Co.	Stairs and Burgess's Granary.
Messrs. Burnett & Co.	- - Messrs. Pomeroy and Dudin.	- - Lying between the Old Rose Tier, and the Upper Tier at George's Stairs, Horslydown, and off Mr. Pomeroy's wharf.
Messrs. Blackstone & Co.	Mr. Landell - -	- - Lying between Horslydown, Lower Tier, and Mill Stairs, but off St. Saviour's Dock.
Messrs. Hobbs & Co.	Mr. Stokes - -	- - Lying below Church Hole Tier, and off Church Stairs, Rotherhithe.
Messrs. Pittman and Smith.	Messrs. Hay & Son -	- - Lying off the Tunnel-wharf, and a little below Messrs. Hobbs.
Mr. Horn - - -	Mr. Horn - -	- - Lying off Mangle's Upper-wharf at King's Mills.
Messrs. Davey & Pegg	Messrs. Davey & Pegg	Lying off Mr. Sedger's, Rotherhithe.
Mr. Larkins - -	Mr. Tabbett - -	- Lying off the Waterman's Arms, above the barge builders at the Surrey Canal.

Total 12.

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1735. *Chairman.*] Why do you wish to put in this list of the private moorings?—I wish to put in that list because I think it would be more beneficial if they

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they were public; we have no control over them as private moorings, but we should as public.

1736. What should you propose to do with them if they were public moorings?—I should appropriate them for the public use, instead of being the private property of parties who claim those moorings.

1737. Are they moorings for barges or for ships?—Craft and other small vessels, coasters, and vessels principally in the corn trade.

1738. How many vessels can lay at each of those moorings?—It depends upon the size?—I think from nine to ten on the average.

1739. Captain *Alsager.*] Do you consider those private moorings interrupt the navigation of the river?—No, not always; they do occasionally, when they are overloaded.

1740. Then your objection to it is, that they are out of your control?—Yes.

1741. *Chairman.*] Do you mean to say that they are so far out of your control, that if they lay more than the proper number of vessels there, you have not power to direct the removal of the supernumerary number?—We have that power, but we have met with difficulties at times; those moorings, with others in the river Thames, belonged to Lord Gwydir, and there was an Act of Parliament for them to be purchased for the use of the public; they were valued by the Navy board and the Trinity-house, and Lord Gwydir's and several others were purchased, but some of the private moorings were not, the parties not being able to give a proper title.

1741. But the parties are liable to an indictment for nuisance if they lay such a number as to be injurious?—I should think so; the money was voted by Parliament, and from what I can learn, is still in the Exchequer for that purpose. I advised the corporation to purchase them, and if they could not agree with the parties, to take them up and let them bring an action against us; but by the advice of the city solicitor they would not interfere with it.

1743. Mr. *Angerstein.*] Are those private moorings opposite to the parties who assume the rights of the wharfs?—Some are; some are not.

Mr. *Thomas Simson,* called in; and Examined.

Mr. *T. Simson.*

1744. *Chairman.*] WHAT is your business?—I am at present a timber and stave broker; I have been so for the last 17 years.

1745. Where do you reside?—At Rotherhithe.

1746. Captain *Alsager.*] Are you acquainted with the navigation of the Thames?—I consider that I am, having sailed for several years in the coasting trade out of the port of London.

1747. Does the nature of your business cause you to be frequently upon the river?—It does, I may say nearly every day throughout the year, more or less.

1748. Have you frequent opportunities of observing the crowded state of the Pool?—Yes, I too frequently see it in the state that it is almost impossible for ships to navigate without a great deal of difficulty; not so much lately, the Pool appears to have been better regulated than it had been for some years before; there is more room in it.

1749. Mr. *Angerstein.*] Will you state the period as near as you can?—I think within the last six months it has been much better regulated than before.

1750. Mr. Alderman *Thompson.*] Have you seen any marked improvement within the last two months?—Yes, in the Lower Pool, but not so much in the Upper Pool; I think the Upper Pool is as much crowded from the St. Katherine's docks to the bridge as it ever was, but the Lower Pool is decidedly more free.

1751. Captain *Alsager.*] Have you frequent opportunities of observing the way in which steam-boats go up and down the river?—Yes, I have daily opportunities of observing that; and I am sorry to say that I have too frequent opportunities of seeing accidents occur, in consequence of the rapid state in which they are allowed to navigate; at present the destruction of property that is daily taking place alongshore, is very great, by the rapid way in which the boats proceed up and down the river.

1752. *Chairman.*] Explain what you mean by destruction of property.—To

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the foundations of wharfs and the property alongshore generally, from the undulation and great swell caused by the progress which the boats make, but more particularly between Greenwich and London Bridge.

1753. Captain *Alsager.*] Have you observed many accidents?—I have seen many persons thrown overboard and been swamped myself in boats.

1754. Do you mean to say that those accidents are caused by small boats only?—Not by the small boats only, but by steam-boats generally; the small boats, that is, the boats which are generally used as passage vessels, have caused more frequent loss of life than the larger boats; but the larger boats create more mischief among the shipping and the small craft, in consequence of the swell which they make being so much greater; that I attribute to their greater draught of water; in fact the swell which the large boats make when the tide is low and in shallow water, is so great, that it is really dangerous for a wherry or any other small boat to be near them at the time they are passing.

1755. Do you know of any particular part where they are more particularly affected by this swell of the steam-boats than any other?—I think that the parish of Rotherhithe, in which I reside, is more affected than any parish alongside the river, for we have upwards of two miles and a half water-side property, consequently we feel it more than any other parish.

1756. Mr. *Angerstein.*] At low water, what is the distance to which it is dangerous for a wherry to approach a steam-vessel?—It depends upon the size, and whether it is a large or small steam-boat, and at what rate she may be going.

1757. At the usual rate at which they move, what is the distance at which a wherry is in danger, as applied to a large vessel and to a small one?—It is dangerous to approach one of the large boats at 100 yards' distance; in fact I may say that I was swamped by one of the large Yorkshire boats at a greater distance than 100 yards; that was in consequence of the swell being so great.

1758. How do you apply the distance of the small boat?—Take it at half the distance.

1759. Captain *Alsager.*] Suppose that it was desirable that the speed of the steam-boats should be restricted, can you suggest to the Committee any means of regulating their speed or stopping it; what is your best mode of checking this reckless mode of proceeding which they have of going up and down the river?—I think the best mode of checking it would be to make the proprietors of the steam-boats take a greater interest in the good management of their boats than they do at present; for, after several lives have been lost, deodands have been levied upon the boats, of various sums, 20*l.*, 50*l.* and 100*l.*, which appears to be a very little consideration to the companies to which those boats belong.

1760. Mr. *Angerstein.*] Are they in the habit of racing one against the other?—Daily; the competition is so great between them that there is as much racing upon the Thames as there has been of omnibuses on the New Road.

1761. Mr. Alderman *Thompson.*] Can you suggest any plan by which the speed of those boats can be regulated?—The best check that I can suggest is, that in the event of loss of life, in addition to any deodand that might be levied by the coroner's inquests, the boat be deprived of her register for a certain space of time, say three calendar months for the first offence.

1762. The object of the question is, whether you can suggest any means by which the loss of human life might be prevented?—Then I should say that the boats ought not to be allowed to proceed from London Bridge to Cuckold's Point, which is the most crowded part of the Thames, at a rate exceeding five miles per hour over the ground; that is to say, adding the strength of the tide with it.

1763. How would you ascertain that they were not travelling at a greater speed than five miles an hour?—The shores are marked now every half mile.

1764. *Chairman.*] Is it not necessary sometimes, in order to avoid a coming danger, that they should go at their full speed?—The tide does not run at most more than three knots an hour, and two knots in addition to that will give them sufficient steerage way.

1765. If they see a vessel coming, and that it is necessary to get out of her way, must they not be occasionally at full speed?—I think not.

1766. Captain *Alsager.*] Do you not conceive that sometimes to avoid a danger it may be necessary to produce an additional speed?—It might be necessary

necessary in the same way as a coachman finds it necessary for a moment to whip his horses to get out of the way, but that must be momentary.

1767. *Chairman.*] Must there not be exception, then, in favour of their going occasionally at their full speed, if the object be to get out of harm's way?—Most assuredly there may be cases sometimes when it is necessary.

1768. Captain *Alsager.*] Can you suggest any mode besides the half mile post on the bank of the river; and how would you superintend their proceeding?—The only other way would be to have an officer appointed to look after the boat after passing certain stations; that a licensed individual should be put on board, who should be responsible for the boat not going at a greater speed than the law would direct.

1769. Would not that incur a very heavy expense upon the owners of steam-boats?—It most assuredly would occasion a considerable expense, but I am not aware of any plan that would so effectually check them.

1770. Mr. *Angerstein.*] Do not you think that the time of a steam-vessel passing Blackwall and Greenwich might be taken at a station, and at that station it would be known to what wharf she was destined?—Certainly.

1771. And by that means the time of her passing from the first point to the second might be ascertained?—Most assuredly.

1772. Would not that be the best way of regulating the motion of steam-vessels?—Certainly; that is very easily done by the river being marked as it is now.

1773. A vessel would have the advantage in that way of momentarily moving quick to get out of the way of a vessel, and yet not exceeding its time?—Yes; I do not consider that it would be necessary to restrict their speed so much below Cuckold's Point, or the western entrance to the West India docks, as it is in the Pool; I think there would be no chance of her doing a great injury if they were allowed to go at the rate of six miles between Cuckold's Point and Blackwall.

1774. Captain *Alsager.*] Are you not aware that the river is very narrow between Deptford and Greenwich, where the timber ships lie?—It is very narrow, and very dangerous there at times; but not so much there as in the Pools.

1775. Mr. *Angerstein.*] Where the river winds, the danger is the greatest?—Most assuredly.

1776. Captain *Alsager.*] Then your best mode for regulating the speed of steam-boats, is by levying fines upon them?—Yes; the owners would then feel an interest in them, which I am fearful they have not taken into consideration hitherto.

1777. As you say you have 2½ miles of wharfage in Rotherhithe, do you yourself occupy premises by the water-side?—No.

1778. Do you know of any persons in Rotherhithe that have mentioned to you the estimate of their annual loss by vessels going up and down?—I have heard many persons complain of their property being washed away by it; in fact, I have had opportunities of seeing daily that it is washed away.

1779. Is there a greater deposit by the side of the river within this year or two, than there used to be formerly?—I think less; the shore is clean; the whole of the shore of Rotherhithe you may walk upon, from the Commercial docks to the upper part of Rotherhithe, and scarcely any mud is to be met with.

1780. Then you think the stream, being much more rapid, carries away the silt on the side of the river?—I think it is in consequence of the water being more in motion by the washing of the steam-boats.

1781. *Chairman.*] The removal of London-bridge, has that nothing to do with it, in accelerating the falling tide?—I can hardly take upon myself to answer that question, there are so many different opinions as to the result of the alteration.

1782. Captain *Alsager.*] There was a large meeting in Rotherhithe last November, was there not, to petition to Parliament, in consequence of the reckless speed of steam-boats?—There was; it was attended by nearly the whole of the respectable inhabitants of the parish; and a petition was got up founded upon the resolutions of that meeting.

1783. Complaining of a great injury and an injustice done to their property

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all along the water-side?—Yes, there was only one opinion at the meeting, I believe, upon it; I have the resolution of the meeting with me.

1784. Mr. *Angerstein.*] From the commotion that the steam-vessels produce in the river, it undermines the walls, does it not?—Yes, that is the fact, more particularly from the Surrey canal as far as Cuckold's Point, the property in the neighbourhood of the King and Queen, and Globe-stairs, which is the narrowest part between where the colliers discharge, and the south shore, suffers most.

1785. It appears to be your opinion that the navigation of the river by steam-boats is an improvement to the banks, inasmuch as it clears the mud away?—It keeps the shore clean most undoubtedly, if such may be called an improvement.

1786. *Chairman.*] What is the general facing of the walls in the part that you speak of; is it planking or brickwork?—Mostly piles and planking.

1787. This would render it necessary that they should make the facing somewhat more substantial than it is; would not that be the remedy?—I am afraid that must be done, otherwise Rotherhithe will be inundated altogether in a short time.

1788. Mr. Alderman *Thompson.*] Do not you think that a boat upon a better construction than that you have now in use might be formed, which would guard against those frequent accidents?—It unfortunately is too much the case at present that the watermen are in a very bad state generally, and that their boats are not so good as I have known them to be in my time, certainly not; but I think they are quite large enough for the upper navigation; when we get to Greenwich and Blackwall we meet with larger boats, and at Gravesend still larger.

1789. But you think that no greater protection to the public could be afforded by the improved construction of the boat?—It most assuredly would be a greater protection, if it could be accomplished by the same class of men who now exist upon the Thames.

1790. Captain *Alsager.*] That is, without requiring an additional man?—Yes.

1791. Do you think it could be carried into effect, a class of boat to be built equally serviceable, and to be rowed by one man?—No, I think not.

1792. Is it your opinion that the class of watermen are in general so poor that they are unable to afford that description of boat?—Most assuredly that is the case; in fact, they are now very poor and badly off, and which I can only attribute in consequence of the steam-boat owners taking the employ out of their hands. It is a difficult matter for persons situated as I am to get a good boat at one-half the stairs below bridge; we frequently have, in fact, to go from one stairs to another to get a boat that is safe to go in, the watermen are so very poor.

1793. Mr. *Angerstein.*] Are you aware in what proportion the watermen have decreased in number since the use of steam in the river?—No.

1794. *Chairman.*] There is a great increase in the number of those who are employed to navigate the steam-boats, who are watermen also?—There are not so many free watermen on board the steam-boats as other men from the coast.

1795. Must they not be free of the watermen's company in order to be employed in the navigation of steam-boats?—In those boats working between London and Gravesend, but not in the boats between London and other parts.

1796. There is a considerable increase in the number of watermen employed in that navigation?—There is, but there is a very material falling off in the number of men employed in wherries.

1797. In the whole, do you think that there is a very material diminution, taking the two together?—I should think there was.

Mr. *Charles Rowland,* called in; and Examined.

Mr. *C. Rowland.*

1798. *Chairman.*] WHAT situation do you occupy?—I am one of the harbour-masters of the port of London.

1799. When were you appointed?—In the year 1821.

1800. Have you occupied the same office ever since?—I have.

1801. Has

1801. Has there been any material increase of the number of accidents happening belong bridge within the last few years?—A great many accidents have occurred.

1802. To what do you attribute them?—I attribute them generally to the introduction of steam navigation; the steam-boats are the principal cause of the accidents that do occur in the river Thames.

1803. What remedy would you propose?—I would propose the remedy of reducing the speed of the steam-boats in the Pools.

1804. How would you propose to carry that into effect?—I should propose that when a steam-boat is intended to depart from or ply on the river Thames, her speed should be accurately ascertained, and a certificate given by the harbour-masters, or some other person, of her rate of going; this rate of speed to be ascertained by an experiment of the number of strokes made by the piston of the engine per minute or in a certain time, and the effect produced in driving the vessel a stated distance. After that is correctly ascertained, before any vessel should be permitted to proceed on any voyage, I should recommend that a notice should be written or painted inside the paddle-box, giving the name of the vessel, the name of the captain and engineer, the number of strokes of the piston required to drive the vessel according to regulations that might be adopted in the port of London, which, I should say, would be about six miles an hour; and that for any steam-boat travelling at a greater rate than that allowed by law, the captain and engineer of the vessel should be fined for so doing, unless positive orders were given by the captain to the engineer to increase the speed; in such a case the engineer should not be liable to the penalty. The system of ascertaining the speed might be easily made by any person pulling out his watch and counting the strokes per minute. If the speed of the steam-boat was accurately ascertained, in reference to the actual strokes of the piston, which might be easily done by experiment, any person on board might take their watch from their pocket and examine the power of the engine, and consequently the speed of the vessel.

1805. Would you leave it to anybody to keep this check upon the velocity of steam-boats, or would you propose that there should be some public officer to superintend it?—I should say a public officer would create a vast deal of expense to steam-boat proprietors, and would interfere with the responsibility of the master of the vessel; and I think that the plan that I propose would remedy the present evil of quick travelling.

1806. Is it not necessary, in order to avoid some danger in the crowded state of the Pool, for a steam-boat very often to accelerate its speed?—It is absolutely necessary in particular cases to do so, but not in the general system of navigation. A penalty on the speed of the vessel would induce the person in charge to stop her in time, and thus avoid danger.

1807. Mr. Alderman *Thompson.*] Would not the power of the engine and the consequent speed of the vessel depend in some degree upon the length of the piston?—Every engine is worked by a piston, and you must calculate according to the number of strokes that that piston will make in a minute; some engines will be driven at the rate of 20 strokes per minute, others 25, or even as much as 30.

1808. The piston may be so constructed that going 10 times a minute will give more power than a piston of shorter dimensions going 20 times a minute?—Yes; but in that case every steam-boat should have her speed ascertained by the strokes of the engine; the required regulations should be painted in a conspicuous place on the inside of the paddle-box, with the before-mentioned information of the responsible officers.

1809. *Chairman.*] That would be your mode of ascertaining the speed of each particular steam-vessel?—Exactly so.

1810. Captain *Alsager.*] The register on her paddle-box, and a copy of that register kept at the steam-packet office?—I should propose that the harbour-master, or some person connected with the river Thames, should ascertain distinctly the speed by the number of strokes of the engine; and that the regulation, whatever it might be, as to the speed of that vessel, and the other information for the public, should be written inside the paddle-box, and the certificate kept on board.

1811. Are the boats that navigate the Thames below bridge well calculated

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for the purpose, looking to the swell occasioned by steam-boats?—They are not at all adapted for the present steam navigation; in fact I should say that ever since I have known the port of London they were never adapted for the number allowed by the licence, crowded as the port of London is; and, since the introduction of steam, they are dangerous in the extreme.

1812. What do you think ought to be the form of the boats?—I have observed a great many boats and their construction, and I have always found that a boat like the Greenwich skiff was the best adapted for the purpose; they are buoyant boats; they carry their passengers and their goods very well.

1813. Mr. *J. Crawford.*] And are managed by one person?—They are; they can be managed by one person.

1814. *Chairman.*] Would the expense of building them be greater than the expense of building the Thames wherry below bridge?—It is much about the same; the difference is between 1 *l.* and a guinea per foot.

1815. With regard to the navigation of the barges below bridge, is there a considerable danger in the navigation of the craft, in consequence of the steam navigation?—Decidedly very great danger.

1816. Would you propose any alteration in the nature of the craft or the mode of navigating them?—I do not see that anything can be better calculated for the trade generally than the present barges; but I think it would be desirable to have wash-boards to prevent the swell coming into the barges, for I have seen them lie in a dangerous state.

1817. Are the number of men who navigate them sufficient at present?—I think one man is quite sufficient for the purpose of navigating a barge; he has the power of turning her head this way or the other, and the tide drives her to her destination; if they had more men they could do no more; of course an additional power would make the vessel go somewhat faster, but it would be of very little importance.

1818. Would any restriction upon their cargo be expedient, or do you think the remedy that you suggest of wash-boards would be a sufficient guard against danger?—It would lessen the danger.

1819. Mr. *J. Crawford.*] Are they not frequently too deeply laden?—Yes, they are so frequently; but when I have seen them I have in many cases hailed the people, and told them that it is a shameful thing for them to load the barge in that manner. I have made it a point of doing so, and I should say any person loading a barge in the way I describe would do so at his own risk.

1820. *Chairman.*] What is the state of the Pool of London as to the number of vessels lying in it or navigating it at present, as compared with the period when you were first appointed harbour-master?—In the year 1824 there was an examination before a Committee of the House of Commons at that period, the whole number of vessels by the returns then made amounted to 27,387 of all classes. By the returns now, I believe, before this Committee, it will be found that the total number of voyages and entries made into the port of London is increased to the enormous amount of 39,453.

1821. What is the 27,000?—Voyages and entries at the custom-house.

1822. What is the proportion which now enter the docks while the others are lying in the port, as compared with the former period?—I have the same return for the year 1824; by this return it appears that there were 2,759 vessels entered the different dock establishments from foreign ports; by the same return of 1835, or rather by a statement which I have here extracted from the bill of entry-office at the Custom-house, there appear to be 2,252 vessels during the year 1835, which leaves 507 vessels less to have their cargoes delivered in the docks than there was at that period, and a consequent increase in the stream of the river.

1823. Mr. Alderman *Thompson.*] Those returns include steam-boats?—The foreign steam-boats it does, in the last return.

1824. Both coastwise and foreign, does it not?—Yes, in the general statement of the port of last year.

1825. *Chairman.*] That will include the same vessel with repeated voyages?—Exactly; those are voyages and entries made by passage steam-boats at the Custom-house from without the port of London.

1826. Mr. *Angerstein.*] Does that return of yours particularize the number of vessels in each dock?—Yes, this is the account from the Custom-house. I have taken it with great care myself; it is an account of the number of vessels and

and their tonnage that entered the different dock establishments and delivered their cargoes in the river Thames, and at the quays, during the year 1835.

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[The Witness delivered in the same, which was read as follows :]

ACCOUNT of the Destination of the Foreign Trade for Delivery of their Cargoes during the Year 1835, taken from the Returns at the Bill of Entry Office, at the Custom House.

1835.	London Docks.		St. Katherine Docks.		West India Docks.		East India Docks.		Commercial Docks.		East Commercial Docks.		Surrey Canal.		Regent's Canal and Docks.		River Thames and Quays.		Total.	
	Ships	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*	*Ships*	*Ton.*
January - -	72	14,085	41	7,997	27	7,720	1	960	11	3,541	-	- -	17	5,602	5	495	288	21,744	382	62,054
February - -	35	6,278	21	4,321	19	5,751	1	424	1	382	-	- -	1	410	9	881	113	13,834	200	32,281
March - -	51	9,902	27	6,576	22	6,228	1	531	6	1,562	-	- -	5	1,609	7	972	219	26,837	338	54,217
April - - -	62	13,279	31	5,786	33	9,318	4	4,296	2	596	1	299	6	1,129	22	2,725	232	30,894	393	68,322
May - - -	70	17,515	50	15,335	61	19,531	15	11,376	15	4,419	1	380	16	3,120	26	2,413	258	33,235	512	107381
June - - -	60	12,222	32	10,905	45	14,386	1	523	6	1,699	-	- -	5	623	35	5,255	197	28,131	381	73,744
July - - -	72	13,468	23	6,106	57	19,082	5	3,720	14	4,748	3	976	13	3,138	17	1,661	241	38,970	445	91,869
August - -	78	16,910	39	9,757	68	22,417	3	2,737	22	6,810	2	498	17	5,663	33	3,797	259	42,558	521	111147
September - -	86	18,621	37	8,996	82	25,436	4	2,171	12	4,098	1	211	10	3,177	20	2,213	214	34,307	466	99,224
October - -	55	10,322	32	6,330	27	7,715	1	446	14	4,555	5	1,384	8	2,441	18	2,356	262	40,490	422	76,040
November - -	75	15,378	41	9,989	15	5,397	-	- -	21	6,910	1	233	13	3,930	12	1,710	273	32,054	451	75,601
December - -	56	10,972	31	6,876	18	4,527	4	1,515	15	4,576	2	653	5	1,416	6	738	117	24,274	314	55,547
TOTAL - - -	772	158982	405	98,884	474	147503	40	28,699	139	43,896	16	4,634	116	32,258	210	25,246	2573	367328	4825	907430
Nearest average of Tonnage of Vessels for each Dock.	206		244		311		717		316		290		278		120		143		Port of London 189	

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1827. How do you account for a less number of vessels having entered the dock?—On account of steam-vessels in the Rotterdam trade, the Dutch trade, the Hamburgh trade, and now the Lisbon trade, and even so far as the Mediterranean; those vessels are discharging now in the river Thames; most of the sailing vessels formerly employed in those trades took cargoes into the docks.

1828. And avoid the charges?—The docks are not adapted for them; though two of the docks have been established since the introduction of steam, and yet the locks have not been constructed sufficiently wide to admit those steamboats.

1829. *Chairman.*] Do you consider it necessary, in consequence of the increased number of vessels frequenting the port of London, that increased accommodation should be provided for different branches of shipping; as, for instance, the coal trade, or any other branch of trade?—Undoubtedly I do.

1830. And in what mode do you think that increased accommodation should be provided?—The only effectual mode would be that of constructing collier docks. In the year 1824 I saw the difficulty likely to present itself by the increase of trade and the increase of steam-navigation; I was the leading person, and instrumental in bringing the Collier Dock Bill into the House of Commons.

1831. Mr. Alderman *Thompson.*] That was for the Isle of Dogs?—Yes, I laboured hard for two years, and lost nearly 2,000 *l.* through it.

1832. *Chairman.*] What are the directions you receive from the principal harbour-master as to the keeping the navigable way clear in the Pool of London?—The general understanding of the orders is to leave 300 feet way clear as far as practicable.

1833. Mr. *Angerstein.*] Why did you select the Isle of Dogs?—I thought at that period it could be done with the least expense; the West India south dock, formerly called the City Canal, belonged to the city of London in trust, and the amount it cost in constructing was paid out of the consolidated fund, and a tonnage-duty put on the shipping to repay this amount, with other improvements in the port of London.

1834. Is your opinion altered since that period?—It is, owing to the sale of the city land and land adjoining to the West India Dock Company.

1835. What should you consider now the best situation for a collier dock?—I think docks ought to be constructed on both sides of the river, to give inland accommodation to the public.

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1836. On what site?—On the south side of the river the Commercial docks and marshes westward would form a good situation; on the north side I should propose that a large dock should be constructed by the river Lea, below the present East India dock, that a ship canal be formed from that dock to the fields at the back of Bow or Stepney, or in that immediate neighbourhood; this would prevent the barges from coming in contact with the shipping and the shipping with the barges; the shipping would go into their dock below Blackwall, but the barges would be enabled to come out of dock at Bell-wharf, Shadwell-dock and at the Regent's-canal, about the same situation in the river as they load from the colliers at present.

1837. *Chairman.*] Do you find it practicable to keep at all times the Pool clear to the width of 300 feet?—We cannot do so.

1838. What is it that prevents you?—The first position is, that the laws are not sufficiently strong to support us in the execution of our duty.

1839. How so?—In the first place, by the 4th sec. of the 10 Geo. 4, c. 124, the harbour-masters are given the power to regulate the shipping, but there is no penalty fixed against any master, owner or any other person, disobeying the orders of the harbour-master. An instance occurred on Thursday last: a barge called the Agenoria, was lying outside Bell-wharf, I ordered her to remove, the captain said he would do so immediately, he was going to the Regent's canal; but instead of obeying that order, he went directly and laid himself outside the next tier, obstructing the navigation at the same time; the law upon that subject states, that you shall give 12 hours' notice in writing; the notice was given in writing, but he remained there 12 hours, and then removed to the place where he was ordered, thus forming an obstruction of 24 hours without the harbour-master having the least chance or opportunity of laying hold of any person belonging to that vessel for disobedience of orders; and he actually took the notice and tore it up, and threw it away before my face, and I had no power to punish that man, notwithstanding he had obstructed the navigation for near 24 hours.

1840. Mr. Alderman *Thompson.*] Had you not the power to summon that man before the Lord Mayor?—None whatever.

1841. Are you clear upon that?—Yes; in order to ascertain the power of the existing laws, I am now proceeding against the vessel called the City of Hamburgh. In every other case objections have been made by the law-officers of the city.

1842. *Chairman.*] Then you consider that there are not sufficient powers given to the harbour-masters to clear away the obstructions?—There are not.

1843. Captain *Alsager.*] You wish some summary mode of proceeding?—Yes; and no regulation can be effected on the river without a summary mode of proceeding.

1844. What is the best mode that you can point out for regulating those vessels under weigh or at anchor?—The first part of that is the worst part; vessels under weigh suppose, they have the privilege of sailing up to London Bridge and down again, if they think proper, without obeying the orders of the harbour-master, and there is no law to prevent them. I should propose that a penalty should be fixed upon any person having the command or charge of the vessels, who should disobey the orders of the harbour-master in the first instance, when those orders are given to vessels; on their arrival in the Collier Pool, the vessels have the power of going almost where they please, owing to the provisions of the 23d sec. of the bye-laws; if they find a good spot they take advantage of it, if it suits them, and if it does not, they will sometimes go to another situation, and are an interruption to the good regulation of the river; but if there was a penalty upon the captain or the person in charge for disobeying the orders, or not going to the tier that was pointed out by the harbour master, it would tend very much to the good regulation of the port.

1845. Mr. *John Crawford.*] Does it happen that with the sanction of the harbour-master, a greater number of colliers are ever allowed to go into a tier than is mentioned in the regulations?—More vessels have been allowed than are allowed by the bye-laws.

1846. Is not that a most important cause of subsequent obstruction in the Pool?—It may be so in particular cases, but not generally; by the same bye-laws that I have before described in the 12 hours' notice, which regulates the Pool and the number of ships in it, those bye-laws give the number as 250 to lie

lie in the Collier Pool; they point out tiers for the accommodation of those 250, and out of the 250 colliers, they put 103 of those vessels in situations that are not adapted for the trade, or available for the trade.

1847. Then it is highly important that there should be a re-berthing under any circumstances?— It is; in fact there are many places, according to the present law, where the vessels cannot lie afloat, or where the harbour-master can berth the ships; I mean that a number of berths laid down in the bye-laws, are in such situations that in low-water they are dry, and the harbour-masters would not be justified in directing a vessel to moor in any situation where she would not lay afloat, or be high and dry at low-water.

1848. *Chairman.*] Have you any plan to suggest as to the tiers in which ships should lie?—I think 300 feet navigation can never be kept as long as vessels lie with their anchors, for high tides, shifts of wind, vessels getting athwart hawse, and a variety of causes, will drive those tiers into the navigation of the river Thames, and the tiers of colliers must be either regularly moored by stones and chains, or be removed out of the river altogether, so as to maintain at all times a navigable passage of 300 feet.

1849. Have you drawn any plan of the mode in which you would propose to moor the vessels in the river?—I have not drawn a plan of the tiers, but I have made a few remarks upon the subject; this is a mooring that I propose for colliers, instead of laying at their anchors; it is different from the general mooring-chains in the river Thames, in certain particulars, but I think quite adapted for the purpose (*the Witness produced a plan*).

1850. How many ships would you propose to attach to the same mooring-chain?—Five, the largest number to one chain, but on the flood-tide it would hang 10, and on the ebb-tide 10, as they would lie quarter to quarter as at present, but having a mooring-chain at each end, and thus occupy only the necessary space for discharging.

1851. Mr. *J. Crawford.*] Have you seen a plan for re-berthing the colliers in the river, which passes under the name of Sir John Hall's plan?—I have; I think I have it before me; and I have taken the liberty of making some remarks upon it.

1852. Is it open to objection or susceptible of improvement?—In my opinion, is it open to very great objection; but the general principles are good. The first position is a comparison on the north side and south side; it is a comparison between that proposed by the harbour-masters and that proposed by Sir John Hall, and by which a passage of 300 feet would at all times be preserved.

1853. What is that paper?—Observations on the proceedings of the port committee relative to the port of London, drawn up by Sir John Hall; it is not signed by him, but refers to a plan circulated by Sir John Hall; the number of nine vessels, as there stated in his plan, lies off the entrance to the London docks, and within the space of 200 yards granted to them by Act of Parliament, and I have it in authority from Mr. Simon Cock, the secretary of the London dock company, that they would not allow any infringement of their rights. The next tier is the tier called Hanover-hole upper tier of 14 vessels; this tier is directly over the Thames Tunnel, and in shallow water; there exists also two lighter roads in the immediate spot, which would prevent the tier being formed. The next tier is Church-hole-stairs tier, 14 vessels also; this tier is generally occupied by the Baltic and timber trade, by the vessels in the iron trade, and other large coasters: the vessels in those trades seem to require less accommodation in that part of the river; however, according to the statement of Sir John Hall, or according to this plan, he gives accommodation to 163 vessels, showing a navigable passage of 300 feet; but in point of fact, the harbour-master, to berth the ships according to Sir John Hall's plan, would depend upon berths for 126 ships only; and there are 130 weighers of coals constantly to be at work in the Pool, independently of those ships that come in to be ready for work the next day, and those that are going away; in all, above 200 sail, and the coal trade would be stopped.

1854. *Chairman.*] Have you drawn up any general plan for the berthing of the ships in the Thames?—I have done so; the plan which I should propose now did not come under the notice of the port committee, because the subject of partial moorings for colliers was introduced, and became the question; but the increase of steam navigation is also so very great this year, and particularly

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in size; and the introduction of large ships into the narrow part of the river, with a steam-boat on each side, makes it highly necessary and important, if such is to be continued, that a proper and navigable passage should be maintained; and therefore, as the experiment has not been tried of regularly mooring colliers, I think it has become expedient such a plan was adopted, if it was but in one tier. In the first instance, to remedy the evils complained of in the Upper Pool between Union-stairs and London-bridge, I propose that the vessels that now occupy the tiers off the Tower, and several other vessels partly laden with coals and partly in goods, should be removed from the Upper Pool, that they should take berth about Cherry-garden, Fountain-hole, West-lane, in what was formerly termed the Middle Pool, on the south side of the river; that the first tier of collier shipping should be the present Church-hole tier, where, as I said before, accommodation is not so much required, as the number of vessels that used to lie there in the Baltic and other trades seems to be decreased. I proposed that the Church-hole tier should be moored with four stones; they are there at the present moment; but they would require to be altered in their position, and that four vessels should lie at each stone, making 16 vessels in all; eight with their heads up, and eight with their heads down. If the water at Hanover-hole could be deepened, and the place otherwise improved, which I see no objection to, for the interests of the public, 18 vessels might be placed at the Upper Hanover-hole, 18 Lower Hanover-hole, 18 Mill-hole upper tier, 16 Mill-hole lower tier. On the opposite side of the water, on the north side, and immediately below the radius of the London dock company, I would propose to lay down moorings equally, the same throughout the whole of the collier pool, according to the plan which I have submitted to the committee: Coal-stairs tier 20; Bell-wharf 20; Stone-stairs tier 17; Ratcliff-cross upper tier 14; Ratcliff-cross lower tier 12. I would also propose that instead of vessels straggling about as they do about the tiers and at Duke shore, to ballast, very much to the annoyance of the trade in that place, that two stones and buoys should be placed there for their accommodation. Thus 169 vessels will have accommodation in the collier pool, and by taking into consideration the vessels removed according to this proposed regulation from the Tower and other places, it will place 25 vessels laden in part with coals and in part with goods, at the moorings by Fountain-hole, Cherry-garden and others; the supply of the metropolis with coals will be secured by the moorings for 194 vessels. I calculate the expense of the proposed moorings at about 3,600 *l.*

1855. What is the number you calculate for?—The number of positive colliers 169, of Newcastle traders and other traders 25; the sum total 194.

1856. Mr. Alderman *Thompson.*] Did you submit this plan to the port committee?—I did not.

1857. Did not you, conjointly with the other harbour-masters, submit a plan to the port committee?—A plan was drawn up and submitted to the committee.

1858. When was that?—That was, I think, as far back as 1831 and 1832, and before that, in 1829.

1859. Was not there one submitted by you about the period when Sir John Hall's plan was submitted to the port committee?—Yes.

1860. *Chairman.*] Is that the same as the one you now submit to this committee?—It is, with very little difference.

1861. Is it all laid down upon the printed plan?—It is, and has been circulated throughout the city of London; the only difference between that plan and the present one is, that which arises from being positively necessary from the immense steam-boats and large vessels that travel upon the river.

1862. What water-way does your plan contemplate?—A clear water-way of 300 feet.

1863. Do you conceive, looking at the navigation of the river below bridge, that it is necessary to keep that water-way?—I have no question in saying that it is highly necessary.

1864. You admit that in fact the harbour-masters have not uniformly kept clear a water-way of 300 feet?—They have not done so.

1865. Do you admit that the complaints that have been made on that subject by the St. Katherine's company and others, have been founded in reason?—Certainly in reason; but not in justice to other trades.

1866. By that you mean that if they keep a clear waterway of 300 feet, owing

owing to the want of space in the Thames, there will not be sufficient accommodation for vessels to lie?—Exactly so; but it is not merely to the St. Katherine's dock that this 300 feet is to be kept; I say it should continue onward to London-bridge, for when taking the dimensions of the "City of Canterbury" the other day, I found her five feet longer than the Dreadnought, of 90 guns, lying at Greenwich; but the Dreadnought has about 16 inches more beam than the City of Canterbury. The City of Hamburgh is still larger than the City of Canterbury.

1867. Mr. Alderman *Thompson.*] Then in point of fact, looking at the great expenditure which has been made upon the construction of the London dock and the St. Katherine's dock, and looking to the valuable wharf property higher up above those two docks, you do conceive that it is most important for the interests of the public, that a space of 300 feet should be kept from London-bridge downwards?—There is no question of it; if no obstruction takes place in the navigation, 200 feet would be sufficient; but with the present trade and traffic on the river, the excess of space would only give further facilities to the trade going up and down to the docks and steam-wharfs.

1868. *Chairman.*] Do you believe that it will be possible to give accommodation to ships lying, and also to give those 300 feet clear, without disturbing the colliers?—Decidedly not; for it is the common system of the coal trade and of every other that does not travel by steam, to go to their destination by driving with the tide; and in laying across that stream for the purpose of going to their destination they are decidedly an obstruction to the navigation, though a necessary one.

1869. You have had frequent complaints from merchants and shipowners of the contracted space of the channel of the Pool?—Frequently.

1870. It has not been confined to one body, but general?—I have found that the complaints that have been brought before the public have been brought by the St. Katherine's dock company.

1870*. There have been other complaints?—Yes; the other day, Mr. Curling, of Davis's wharf, complained that he could not get to his wharf, and required that the tiers opposite might be removed to allow steam-boats to come there; and if they could not do so, he said that they would annihilate his trade. Another complaint was made of a similar nature at Nicholson's wharf.

1871. Mr. Blenkarne?—Mr. Blenkarne has complained of the state of the Pool, and on a former occasion he paid a sum of money as a penalty for directing a vessel to obstruct the navigation off his wharf.

1872. Do you remember a meeting that was held in the city of London tavern about the state of the river?—I remember that there was such a meeting.

1873. Great complaint was made at that meeting, and a resolution passed? I heard what was said by parties, but I did not attend. I have been told that it all emanated from Sir John Hall.

1874. Mr. *Angerstein.*] Of course the parties highest up the river have the greatest interest in keeping the trade clear?—Yes.

1875. Mr. *J. Crawford.*] There is a great increase in the navigation of the river?—Yes; and since the returns have been made to the House of Commons it has increased in large and powerful boats; and those large and powerful boats are, I understand, to come up to London-bridge.

1876. Supposing that the colliers were removed from the stream, should you apprehend that there would be any difficulty in the steam navigation proceeding up the river?—The extent of water-way would render it much easier of access to the different wharfs; the vessels that I propose to remove from the Tower and that part of the Thames will relieve the navigation in that district; but a great space only induces the steam-boats to race.

1877. Would there be any obstruction to future steam navigation, if the colliers went into the docks?—There would be obstruction, but it would be comparatively nothing.

1878. *Chairman.* Do you think it would be necessary, in case of the construction of collier docks, to make it compulsory upon them to go into them, or do you think that the accommodation afforded by them would be sufficient inducement to them to enter them?—I have, ever since 1824 and 1825, endeavoured to ascertain the facts of this important subject. I was in communication with the coal-owners, and pit-owners and coal-merchants, and, in fact, every

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operation of the coal trade; and it was decidedly the opinion, that if a collier dock was constructed, the coal-merchants would not buy a single cargo out of the dock where that vessel might go, unless they were compelled to do so.

1879. Mr. *Angerstein.*] What do you conceive the increased charge would be?—According to the statement, I have the letters that I sent upon the occasion of the collier docks on the Isle of Dogs, to the Chancellor of the Exchequer, to the Lords of the Treasury, to the navigation committee of the city of London, and other interests concerned, and various other documents connected with the expense; and according to those, it would be found that vessels going into that dock at that time would have been a saving to them of money, instead of paying for it.

1880. *Chairman.*] How do you explain that?—In the first instance, the expense was considered; the ground proposed for the collier docks was of little value comparatively to any other situation; it was a marshy land; this land is upwards of nine feet, on the average, below high-water-mark.

1881. State generally the outline of your reasoning, by which you mean to show that it would not be of greater expense?—It was principally in the improved system of delivering their cargoes of coals. At present they have 11 men to discharge the cargoes; we could have done the same with five, and in one-half the time.

1882. Would they also save the usual damage which now occurs?—That was also a matter of consideration and of calculation, for the risk of damage is very great, and the expense of wear and tear is very great; also it was understood that an arbitration should be entered into to ascertain as far as practicable, the real value of the wear and tear of colliers on the river Thames, and the expense of detention. These points settled, the collier dock directors offered to make their rates one penny per ton less than the amount so awarded, which would give them one penny a ton on their present expenses.

1883. What was to be the charge upon the colliers for going into this dock?—It was computed that every ship that went in there, on the average, would pay 4 *l.*, 250 tons register.

1884. What is the average calculated cost of wear and tear and damage in consequence of vessels lying in the stream at present?—I have not those minutiæ; they were calculated at the time, and I believe I have a calculation by me.

1885. Mr. *John Crawford.*] You have reckoned that the charge upon a collier coming into the collier dock, would have been 4 *l.* for 250 tons?—Yes.

1886. *Chairman.*] Do you believe that at that rate of charge the consumers of coals would receive their coal as cheap as they do at present?—I do; when this plan of mine for a collier dock on the Isle of Dogs came forward, the City canal formed part of the plan, and the public might have had the advantage of the dock within a very short period. Since that time, this part of the plan has been sold to the West India Dock Company, and the two entrances into the river of those docks would entirely preclude the land carriage, which was one of the great objects of making a collier dock, and it is by land carriage that the public would gain the great advantage in the price of coals, as well as by the space opened for navigation. I think, as I said before, it would be very advisable to have one dock at the north side. The plan I here propose suggested itself in 1823; it would have the effect of taking the barges from the shipping, it would supply the whole of Hertfordshire and Essex by the river Lea, it would take the great circuit of London by crossing the Regent's canal, it would then be adjoining the railroad that has just passed the Committee of the House of Commons, and it would be but a very short distance from a great many manufacturers, brewers and distillers, who live about Brick-lane and the eastern parts of London.

1887. In case of constructing another collier dock on the south side of the river, would you propose that there should be water communication up to Vauxhall?—It would be desirable, but I have anticipated that it is almost effected at present by the Surrey canal; it goes as far as Camberwell; it gives an opportunity of supplying the whole of the south of the Thames by land and by water also.

1888. Mr. *Angerstein.*] Do you consider yourself entirely under the direction of Captain Fisher?—Yes, subject to have his orders questioned before the committee.

1889. After

1889. After obeying him?—Yes.

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1890. *Chairman.*] Do you consider yourself liable to be discharged in case of misconduct by the city committee?—Not by the city committee, but by the Lord Mayor; and I should say, a representation from the committee to the Lord Mayor might be considered as a sufficient representation.

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1891. Have you orders as to attending upon the river at particular times of the tide?—The order, according to the present bye-law, is, that we shall remain afloat during the flood-tide, and two hours after high-water.

1892. Do you do so?—We do generally, but not always; we consider ourselves on duty from daylight until dark; we go on duty before daylight sometimes, and we are off duty again after dark; the flood-tide is hardly sufficient in itself to give an opportunity of seeing the whole district, without neglecting the other part of the duty. According to the general feeling, it is supposed that the harbour-masters ought to be at the entrance of the Pool; now that is a good situation for him to be in, but at the same time he neglects the Tower and other places that call his immediate attention in that neighbourhood, and cause complaints there that he has not the power of remedying.

1893. And the introduction of towing vessels up by steam has made the former regulations as to the time of tide insufficient?—Not insufficient as to the general state of the Pool, but as to the distance we have to regulate.

1894. Will not vessels be coming into the Pool, when towed by the steamers, at a time of the tide when, before the introduction of that mode of coming into the Pool, they would not have attempted it?—Yes, I have seen vessels come up against the ebb-tide, and I have deprecated in the strongest terms such a system of navigation.

1895. Therefore any regulations as to the time of tide, when the harbour-masters should attend, have been rendered inoperative in consequence of the introduction of the practice of towing up vessels by steam, have they not?—That is one of the reasons, and the station allotted to harbour-masters in which to do their duty is so great in extent, that it is impossible for one harbour-master to have the whole responsibility of the station.

1896. Mr. *Angerstein.*] Do you not think that great benefit would arise from the harbour-master living constantly afloat at the entrance of the Pool, and directing every vessel where it should go?—I am sure I do not know, although I am very fond of the water.

Jovis, 23° die Junii, 1836.

MEMBERS PRESENT.

Mr. Fox Maule.	Mr. Bell
Alderman Wood.	Captain Alsager.
Mr. Crawford.	The Lord Mayor.
Mr. Angerstein.	

MR. FOX MAULE, IN THE CHAIR.

Mr. *Charles Rowland*, called in; and further Examined.

1897. Mr. Alderman *Wood.*] WERE not the port dues released from the charge of interest in consequence of a representation on the part of Government, and not in consequence of the sale of the City Canal and the Isle of Dogs?—The tonnage duty was taken off in consequence of a representation of the shipping interest to the corporation of London.

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1898. And the corporation then made an application to Government?—To the Treasury; but relief was afforded in part by the sale of the City Canal to the West India dock company.

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1899. Was the obstruction in the navigation in the Pool in 1824 and 1825 much greater than it has been subsequently?—Much greater.

1900. Has the relief in the collier trade been occasioned by the formation of the St. Katherine's docks?—No relief whatever has been afforded by the construction of the St. Katherine's docks.

1901. Has it not been effected by keeping the colliers out of the Pool, and the improved regulations of the coal trade?—The cause of the present state of the Colliers' Pool being better than it was, is partly owing to the improved mode of delivering coals from the ships. It has also been improved by the regulations which have taken place at Greenwich, by detaining colliers out of the Pool, and letting them up from the lower station according to their turns. The list of ships sold each market day is forwarded from the coal-market to the harbour-master's office at Greenwich.

1902. Will you state to the Committee how those regulations were framed, and by whom?—I have them here. This paper contains all the various regulations made by the navigation committee for the good government of the harbour-masters and the better regulation of the coal pool.

1903. Mr. *Angerstein.*] What is the date of that?—The 24th of September 1835.

1904. Mr. Alderman *Wood.*] And also by the order of the port committee the harbour-masters have made regulations under that order?—Not only under their orders, but by the powers granted to the harbour-masters by the 4th section of the Act of Parliament, 10 Geo. 4. c. 124.

1905. Did you address any letter to the port committee with regard to those regulations?—I did.

1906. What is the date of it?—The 24th of September 1835.

1907. Mr. *Angerstein.*] Is that a general letter sent by the harbour-masters, or your own?—The introductory letter will state what it is. I was desired by the chairman of the Thames navigation committee to make a statement to him of what had taken place with reference to the complaints of Sir John Hall, and the regulations, and in fact a general outline of the harbour service, and the way it was conducted.

1908. *Chairman.*] Please to put that in?—Certainly.

[*The following document was then put in:*]

Sir, Harbour-Master's Office, 24th Sept. 1835.

THE time and the attention of the worshipful committee over which you preside having been for a considerable period occupied in endeavouring to obtain by personal evidence the "facts" connected with the trade of the port of London, with a view to its accommodation in the stream of the river Thames, according to ancient custom, at the same time that the home and foreign commerce of London should have every facility of approaching the metropolis by a safe and commodious passage through the Pools.

The number of erroneous and exaggerated plans and statements which have been industriously circulated are calculated to make a false impression, and prejudice the mind of the public and the port committee in their decision on these important subjects; as all laws should be based upon reason and justice, supported by truth, so for the general benefit of the public in this case should the deliberation be free and unbiassed.

To enter into the whole subject under discussion is not the object in view, but to put the committee in possession of the "facts," and to show that the different committees of the corporation of London, connected with the good government and management of the port, have at all times acted with impartiality, and listened most attentively to all complaints and suggestions, having for their tendency the better regulating and improving the port of London.

Your determined and judicious exercise of those arduous, conflicting, and difficult duties as chairman of the port committee, the attention paid by you to the regulation of the shipping in the river, your frequent visits through the Pools, gives you an opportunity of seeing and knowing that the general statement of frequent obstructions in the Pools are assertions not founded in fact, or borne out by any evidence yet produced before the committee.

In accordance with your request, I have examined most of the statements of importance tending to influence the decision on the minute investigation just terminated.

I beg to assure you and the worshipful committee, in the name of the harbour-masters, that it has always been their desire to conduct the business of the port to the satisfaction of all interests connected with this great and important river. I have to apologise for being prolix, but it is unavoidable, owing to the subjects in discussion having produced for its argument statements derived from reports and investigations during a period of near 40 years.

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Having now fulfilled your wishes in the annexed observations as far as my humble abilities will allow me, I lay them before you, in the sincere hope that they may forward the ends of justice, and to the better regulation and improvement of the port of London.

I am, Sir, &c.

Charles Rowland.

Walter Anderson Peacock, Esq., Chairman of the
Worshipful Thames Navigation and Port of London Committee.

Prefatory Remarks.

The writer, by the direction of the chairman of the worshipful Thames navigation and port of London committee, was instructed to investigate and make such remarks as he might deem necessary on the numerous statements, both verbal and printed, that have appeared during the late investigation, and at various other periods, but in doing so a difficulty occurred which of them had received the greatest publicity, or was of the most importance. It has been determined to confine the argument in chief, in the first instance, to a printed paper circulated by Sir John Hall, as secretary to the St. Katherine Dock company, and acknowledged to be his "observations," &c. Other papers and documents will be used in the course of the investigation to elucidate "facts."

The remarks at the conclusion will embody an outline of the whole of the proceedings of the port committee, and the regulations which have from time to time been made for the improvement of the navigation of the river Thames.

Answers to a paper which has been circulated gratuitously to members of the corporation of London and to the public, entitled,

"*Observations*

"On the subject of preserving the passage through the Pools in the river Thames, of the width of not less than 300 feet, as now by law established."

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"The question relating to a free and unobstructed passage for shipping through the Pools, of the width of not less than 300 feet, as now by law required to be kept, is one of vital importance to the commerce and navigation of the port of London. A recommendation to reduce such passage to 250 feet* having been submitted to the court of common council, this and other matters connected with the harbour service and improvement of the port have been referred to the navigation and port of London committee for consideration. The following is a recapitulation of the substance of the facts, &c., touching this most important branch of the inqiry."

Before entering on the general consideration of the subject of 300 feet for navigable passage through the Pools, it will be highly necessary to enter into explanation upon some of the points denominated "facts."

Observation 1st.

"In 1796, Committees of both Houses of Parliament had under their consideration the necessity of providing additional accommodation for the trade and shipping of the port, at which period the number of ships that entered the same during the 12 months preceding, was about 11,000, when it was established in evidence that a clear channel of not less than 250 feet should be preserved for the transit of shipping, and that no more than 12 ships should be permitted to lie in any tier."

The answer to this observation comprises two points; first, that it was established in evidence that a clear channel of not less than 250 feet should be preserved, &c. Now for the evidence.

Abraham Pickering, a pilot (1796). In his evidence before the Committee of the House of Commons on the port of London, on the proper width of a navigable channel through the Pools, "thinks the space of 250 feet a sufficient space to navigate up and down the river. On the question being repeated to him, he answered, yes, quite enough; more than there is at times by 150 feet."

Mr. *Robert Batson*, a ship-builder, and 45 years on the banks of the river Thames, on the same inquiry, "thinks the space of 250 feet sufficient for the passage of ships, in which amount he takes into consideration the number of craft necessarily employed in the coal trade."

Capt. *Anthony Ludlam* (1796). "Had been 26 years at sea, 17 of them to the port of London; being questioned on the same subject, thinks the space of 250 feet is quite sufficient for the passage of ships through the pools." This gentleman was appointed, in 1799, to be harbour-master of the port of London, and continued in the said office until 1829. The opinion expressed by him in 1796 was confirmed by the practical experience of 30 years.

2d.

* It is confidently reported, but considered incredible, that the harbour-masters did actually urge upon the port committee to contract the navigable channel to 200 feet.

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2d. "That by the same evidence no more than 12 ships should be permitted to lie in any tier."

Answer. It should be understood that at the time this evidence was given, it was in reference to a visionary plan before the House of Commons; there were no laws for the regulation of shipping in the mode of mooring in the river Thames. The shipping at this period (1796) used generally to lay in tiers alongside each other; and when receiving or discharging a cargo, they would boom off their neighbour, to allow the craft to come alongside, and not lay quarter to quarter, as the colliers do at the present time. Thus 12 vessels in such a tier (average beam 25 feet, boom 20 do., 45 feet each vessel) being at work would occupy a breadth of 540 feet across the river, whereas by the present mode 24 ships, with a craft outside the tier, can be accommodated in the same width of space. The system of mooring was altered after the opening of the docks, and the ships were regulated by the bye-laws.

The observations that the passage of not less than 250 feet, &c., and that no more than 12 ships should be permitted to moor in any one tier, is not borne out by the fact of evidence, and therefore calculated to mislead the port committee and the public.

A code of bye-laws was approved, by which, amongst other regulations, it was "ordained that no more than 15 ships should be permitted to lie in any tier, and the harbour-masters were enjoined to keep the navigation of the river free."

The introduction of this observation is evidently intended as a censure on the harbour-masters, and to show that they were culpable in not confining the number in each tier to 15 sail of vessels. It should be remembered, that the bye-laws were approved of on the 25th January 1806; that the West India docks were opened for business 21st August 1802; the London docks 30th January 1805; and the East India docks 4th August 1806, and had relieved the river of most of the large ships, and therefore the number of 15 ships might have been sufficient for the accommodation of the trade using the river at that period, but after a lapse of near 30 years, the ships delivering their cargoes in the stream of the river have more than doubled in number, and the harbour-masters have less space * to accommodate them in, and therefore it is not a matter of astonishment that the tiers should exceed 15 sail of vessels. The harbour-masters have been compelled from time to time to allow more vessels to lay at the tiers, according to the wants and nature of the various trades resorting to the port of London, and they were authorized so to do by the same clause on which this complaint is founded, and which, if it had been fairly quoted, would not have answered the purpose of the author of "Observations," &c.

Clause 29. "And be it further ordained and established by the authority aforesaid, that the space or distance upon the said river, from Limehouse-bridge to Shadwell-dock lower tier, shall be allotted and appropriated for the reception of the largest colliers, which said colliers shall be placed and arranged within the said space or distance, at the discretion of the said harbour-masters, or one of them, in tiers, which said tiers shall in no case exceed the number of 15 ships or vessels in each tier; and all other colliers which shall arrive in the said river shall, under the like discretion, be laid or stationed at Shadwell dock, Pelican-stairs, and King James's-stairs, in tiers not exceeding 15 ships or vessels in each tier, unless by the direction of one of the said harbour-masters, and at New Crane-stairs, in tiers not exceeding 15 ships or vessels in each tier, unless by a like direction, and in and about Hanover-hole, in such manner as the said harbour-master or harbour-masters on duty at the time shall think fit; and the said harbour-master on duty as aforesaid shall appoint such stations for all ships and vessels belonging to other trades, as in his or their judgment shall be most proper and expedient, and as occasion may require."

The increasing trade to the port of London rendered it necessary that some provision should be made in the bye-laws for extending the tiers, should it be required by the wants of the trade, and prevent their frequent alteration. This discretionary power was very properly placed in the hands of the harbour-masters, for by the 16th sec. of the same bye-law it is "Ordained and established, that the said harbour-masters, or any or either of them, shall not under any pretence, accept or receive from any person whatsoever any gratuity, fee or reward, directly or indirectly, for anything done or omitted to be done by him, them, or any of them, in the discharge of their several and respective duties or employments; nor shall they, or any or either of them, give any preference or show any favour or partiality in the mooring or anchoring of any ship or vessel, or in any other matter or thing regarding their respective duties, but shall direct the mooring or anchoring thereof, in

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* In a line with the tiers in the river the distance taken away by

	Feet.	*Tiers.*
The St. Katherine's dock	600	3
The London docks at Shadwell	1,200	3
The London docks at Wapping	1,200	3
The London docks at the Hermitage, entitled to 1,200 feet, only occupies	200	1
Grand Surrey Canal dock	600	2
Total	3,800	12

In addition to this reduction of the space formerly allotted for vessels to discharge their cargoes, the Regent's Canal dock requires an open space; and there is considerable doubt on the propriety of laying a tier of vessels in the immediate vicinity of the Thames Tunnel during the operation of the work.

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in such manner as her size, draft of water, the trade wherein she is employed, and the competency of the moorings in his or their fair and impartial judgment shall require, due care and attention being always had by the respective harbour-masters to preserve and keep the navigation of the said river as free and open as may be."

And what is the evidence upon this subject, taken before the Committee? "That every attention is paid to the regulation of the river;" that it has been clearer for several years past than it ever was before; "that there is plenty of room in the Pool for the largest ships."

One witness said, "he had made during the last year 230 passages through the Pools with large vessels, and that 5 *l.* would cover the whole of his expenses for the last two years."

Other witnesses stated, "that since the harbour-master's office and the collier detention flag had been established at Greenwich, no other regulations in the Pool could be better."

The same description of evidence was given by a number of disinterested and practical men.

The evidence produced in the Committees of the House of Commons, only proved that from the increase of trade since the opening of the docks, and the introduction of steam-vessels (having the power of navigating at all times of the tide) that the pools were not sufficiently capacious for the accommodation of the shipping and trade of the port, and the harbour-masters have always been ready to state these facts, and have repeatedly reported the state of the navigation of the river to the Houses of Parliament, and to the corporation of London; and when obstructions have taken place, the causes have been properly laid before the authorities, and from these representations, regulations have been made * and adopted with great success.

"In 1824 and 1825," says Sir John Hall, "the crowded state of the river, the obstructions to navigation (particularly in the Pools), and the urgent necessity of providing additional and improved accommodation to the commerce of the port, again occupied the attention of both Houses of Parliament, when Acts were passed for constructing Collier docks, the South London docks, and the St. Katherine docks; the two former, however, were never carried into effect."

In 1824, the coal trade had increased since the bye-laws were made, in 1806, by about 2,500 sail of vessels, of 642,000 tons; the whole trade at this period amounted to about 7,000 vessels of 1,900,000 tons, and the coasting trade had increased in the same proportion of numbers of vessels; yet, notwithstanding this vast increase in the trade of the port, with increased difficulties, and the proof in the House of Parliament, "That the colliers in the Lower Pool have frequently completely obstructed the navigation, and have rendered the coal pool particularly dangerous to vessels bound up and down; that many accidents have occurred, and the commerce been impeded."

The Legislature did not consider the above evidence sufficient to sanction a remedial clause in the bill for a collier-dock on the Isle of Dogs.

Let any one view the extent of this vast metropolis, and compare it to what it was in 1806; take also into consideration the numberless manufactories, and the important introduction of gas and steam in all the various operations of life, and there will be no doubt left on his mind but that coal is a very important article, equally indispensable to our health and comfort, as to the commerce and prosperity of the country; and consequently as the demand increases, so the accommodation and facility in supplying those demands are required; instead of gaining this, the dock companies obtain exclusive privileges to parts of the river, and an extent of water-way for navigation, turning the ancient occupiers of the river out of their berths.

Sir John Hall, in the preface of this letter, dated 21st September 1827, states, "It is due, however, to the members of the port committee, to acknowledge the diligence and zeal with which the inquiry is proceeding, and from the mode in which the investigation of this most important subject is now conducted, confident hopes may be entertained that speedy and effective measures will be adopted to remedy the evil."

"1827. The port committee resumed the consideration of the regulations of the harbour service, and having expressed a wish to Sir John Hall that he would furnish them with information in detail upon the several points connected with the navigation of the river, the manner in which the harbour service was performed, and the remedies it might be expedient to apply, a communication was made accordingly, and the subject being one of great importance to the commercial and shipping interest of London, copies were circulated for the information of the public.

The subject had at this period occupied the time of the port committee almost exclusively near three years, without any decision or interference with the established custom of the coal and other trades, until William Routh, Esq., then chairman of the committee, undertook the laborious task. Evidence was again produced, and a thorough investigation took place. Application was made to Parliament for power to sell the City Canal, by which the duties of the harbour-masters there were dispensed with, and their labours exclusively confined to the regulation of the shipping in the river.

Another

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* 22 July 1825. Port of London Committee, Guildhall. } Resolved, That not more than 250 sail of colliers should be permitted to lie in the Pool at one time, and that the harbour-masters be directed to cause a signal flag (half red, half white,) for stopping colliers, to be hoisted at the Blackwall end of the City Canal, whenever that number has been moored therein.

Memorandum.—The number of 250 sail of colliers to be permitted to be in the Pool at one and the same time was fixed by a communication between the port of London committee and the coal trade.

Mr. *C. Rowland.*

23 June 1836.

Another Act of Parliament was obtained, the 10th Geo. 4th, Royal Assent 19th June 1829, entitled, "An Act for altering and amending the Powers of an Act of the 39th Geo. 3rd, for rendering more commodious the Port of London." By this Act of Parliament the harbour-masters were reduced in number. The penalty for the non-performance of the bye-laws increased from 40*s.* to 10*l.* In other respects this Act is exceedingly faulty, but in conformity to it bye-laws were made for the port of London, which passed the common council 25 days after the Royal Assent was given; and, what will appear singular, the harbour-masters, who had to put these laws into operation, were not consulted on the effect and the practicability of carrying their provisions into execution.

The St. Katherine's docks were opened for business on the 25th October 1828, and then commenced the introduction of large ships up through the Pools; many of the pilots so employed represented obstructions where none really existed; it was a new era in their occupation. Blackwall had been the point of destination for 21 years, owing to the large ships being employed in the East and West India trades, and the compulsory clauses of the East and West India docks confining them to those docks; and many pilots have never until this period, been in the pool with a ship. Is it not natural that representations of the above description have been resorted to by the pilots, to cover their want of judgment and timidity, that they may get rid of their charge at Blackwall *?

Sir John Hall has been a ready listener: and it is well known that tales never lose by a repetition. The pilots have taken large ships up on a falling tide, a practice fraught with danger, and a wanton risk of property, and should be known to the corporation of the Trinity-house, the insurance offices, the merchant, and the shipowner.

The grand principle of the amended bye-laws was to preserve a passage through the Pools to the St. Katherine's docks of a space of not less than 300 feet, of course to be continued to London Bridge†, by which, had it been carried into full effect, 187 sail of vessels would be frequently sent out of the Pools to discharge their cargoes at Deptford, Greenwich, &c., and thus the necessary supplies to the metropolis of merchandize and provisions would have been materially interfered with. In reference to the coal trade, it was stated to the port committee by the committee of coal factors, that the trade required 250 sail of vessels in the Pools; upon which evidence the 23d clause in these new bye-laws was introduced: "And be it further ordained and established by the authority aforesaid, that no more than 250 collier ships shall be permitted to be and remain placed, moored and distributed in tiers at one and the same time, at the tiers hereinafter mentioned, which have been heretofore used for the mooring of collier ships and vessels, and that no greater number of such ships or vessels than the number hereinafter specified shall be permitted, under any circumstances whatever, to be moored at the said respective tiers, (that is to say)

		Unavailable.
"On the north side of the river,		
"At Wapping Dock tier, not exceeding the number of four ships to be moored with their heads up the river, and four ships to be moored with their heads down the river - - - - - - - - -	8	8
"At King Edward Stairs tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	8	8
"At the New Crane tier, not exceeding the number of five ships to be moored with their heads up the river, and five ships to be moored with their heads down the river - - - - - - - - -	10	10
"At King James's Stairs tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	10	10
"At Pelican Stairs tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - - -	10	
"At Shadwell Dock tier, not exceeding the number of seven ships to be moored with their heads up the river, and seven ships to be moored with their heads down the river - - - - - - - - -	14	
"At Coles Stairs tier, otherwise called Bell-wharf upper tier, not exceeding the number of 10 ships to be moored with their heads up the river, and 10 ships to be moored with their heads down the river -	20	
"At Bell-wharf lower tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	20	
"At Stone Stairs tier, not exceeding the number of nine ships to be moored with their heads up the river, and nine ships to be moored with their heads down the river - - - - - - - - -	18	
"At Ratcliff Cross upper tier, not exceeding the like number of ships to be moored with their heads up and down the river - - -	18	
"At Ratcliff Cross lower tier, not exceeding nine ships to be moored with their heads up the river, and eight ships to be moored with their heads down the river - - - - - - - - - -	17	

"At

* A Greenwich waterman is generally employed by the pilots in bringing vessels through the Pools, who is known by the appellation of the "Pilots' Nurse."

† The large steam-vessels using the moorings off the Tower and Custom-house occupy a larger space on the water than the largest ship that has ever been in the St. Katherine's docks, and, therefore, 300 feet only to the St. Katherine's docks shows an exclusive privilege.

		Unavailable
"At Botany Bay upper tier, not exceeding the number of seven ships to be moored with their heads up the river, and six ships to be moored with their heads down the river - - - - - - - - -	13	13
"At Botany Bay lower tier, not exceeding the number of six ships to be moored with their heads up the river, and six ships with their heads down the river - - - - - - - - - - - - -	12	12
"At Kidney Stairs tier, not exceeding the like number of ships to be moored up and down the river - - - - - - - - -	12	12
"On the south side of the said river:		
"At King Stairs tier, not exceeding the number of five ships to be moored with their heads up the river, and five ships to be moored with their heads down the river - - - - - - - - - - -	10	10
"At Prince's Stairs tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	10	10
"At Church Stairs tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	10	10
"At Hanover Hole tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - - -	10	
"At Mill Hole upper tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	10	
At Mill Hole lower tier, not exceeding the like number of ships to be moored with their heads up and down the river - - - - -	10	
	250	103

Total provided for by the bye-law according to the stated wants of the coal trade - - - - - - - - - - - - - - - - - - -	250
The number of berths unavailable, as above described - - - - - -	103
Total really provided for by this bye-law which still remains unrepealed - - -	147

The remainder of the clause enforces the regulation of 300 feet navigation to be observed, and not more than 250 colliers to be permitted into the Pool at one and the same time; penalty 5 *l.*, after a notice of 12 hours.

Whether the tiers were apportioned properly or not will be seen: thus the tiers at Wapping Dock, King Edward Stairs, are mud tiers, and according to the bye-law, to contain 36 vessels in a situation on the ground, and where they could only work at periods according to the state of the tide, and where there would be a great risk of the loaded barge being sunk; also in situation where no harbour-master would be justified in ordering a vessel to, and the commander of the vessel having the responsibility would refuse to obey the order.

The next tiers are Pelican and Shadwell Dock: these two tiers have been done away with, in consequence of the London dock company claiming their exclusive privilege of a radius of 200 yards into the river for a free ingress and regress to their eastern entrance at Shadwell. The tiers of Cole Stairs, Bell Wharf, Stone Stairs, and two at Ratcliffe Cross, are the only tiers on the north side available for the safe accommodation of colliers. The lower tiers at Botany Bay and Kidney Stairs have but little water, and, from the hardness of the ground, the anchors of the tiers will not hold, and are liable to be always adrift, consequently damage will ensue. They would also block up the entrance to the Regent's Canal, and destroy a place very much required and used by colliers and other vessels to ballast in, which enables other vessels to take their berths in the regular tiers.

On the south side: the only tiers on which a calculation can be formed are Mill Hole, two tiers, Hanover Hole, one tier. The tiers at Church Stairs, Prince's Stairs, and Elephant Stairs, are tiers with proper chain moorings, reserved, when required, for the Baltic, Mediterranean, timber (small), corn vessels, Irish, large vessels in the iron trade, and many other trades during the year. When the necessities of the coal trade require a greater number of vessels in the Pools than usual, or when vessels are partly laden with goods and part coals, they are permitted (when room for them) to these moorings; therefore to appropriate them entirely to colliers would be doing a great injustice to the trades above-named, as these tiers retain the only deep water where heavy-loaded ships can lie in the Upper Pool.

Therefore, according to the bye-laws, the number apportioned to the tiers is 250, out of which 103 are not available, leaving berths for only 147.

The requisite number to be in the Pools at one time, with all the meters at work, which will be explained hereafter, amounts to 215 sail. This is a plain statement of the bye-law, as it stands at the present time, for the delivering of about 2,500,000 tons of coals, and mooring near 8,000 sail of colliers in the course of one year.

This plan for mooring colliers was referred to the harbour-masters for their opinion, distinct from any connexion with the bye-laws, which was duly considered, and reported by them to be "crude and vague." Notwithstanding this strong condemnation of the plan, it was inserted in the new bye-laws, and has never been acted upon to this day, from its inconsistency.

Without wishing in any degree to cast any imputation of partiality upon Reports made to the House of Commons, by its Committees, still it is a matter of great notoriety that Reports are often founded upon *ex parte* statements, where one individual can often give a bias to the evidence: such was the opinion in this case; for when the statement alluded to came before the port committee, it was keenly remarked, "That the Committee of the House of Commons had made a Report, but Mr. Hall had made all the noise."

Observations.—"1831. A Select Committee of the House of Commons, in their Report upon the frequent calamities produced by steam navigation, &c. observed, 'That it appears that the regulation and extent for keeping a proper extent of passage-way on the Thames, near London, for vessels and boats to pass up and down, are not duly attended to or enforced by the harbour-masters, from which mischief and inconvenience result. Your Committee, therefore, are of opinion, that it is necessary that the authorities in the city, who possess jurisdiction in these matters, should forthwith have their attention called to them, with a view to their applying such early remedies on these two points as they may be found to require.'"

1832. "The Lords of the Committee of the Privy Council for Trade, called upon the port committee to know whether they had taken any steps to carry the foregoing recommendation into effect. At the same time representations were also made to the port committee, by the London dock company, the St. Katherine's dock company, and others, of the insufferable impediments to the navigation of the river, pointing out defects in the bye-laws, and offering cogent reasons for amending them."

The port committee examined into the Report on Foreign Trade, and found that the alterations in the port of London, recommended by the Third Report of the Select Committee on Foreign Trade, were principally founded on the evidence of Captain Alexander Murray, who was summoned on several days before the port committee, to substantiate the said evidence, in which he failed; and not giving satisfactory answers, their decision was, "That no reliance whatever can be placed in the evidence given by him, to justify this Committee in making any alteration in the system at present adopted."

In 1832, the whole subject of the port, which had been at various times (near eight years) under investigation, by the port committee, was again brought forward under the new committee, the port and navigation having been consolidated. And that the committee might fully understand the merits and demerits of the complaints of the St. Katherine's dock company, short-hand writers were employed to record the evidence, which was abundantly given by the dock and canal companies, ship-owners, wharfingers, coal trade, &c. &c., and after much labour and time having been expended in the investigation, the evidence was found so voluminous and contradictory, that the town clerk was directed to make a digest of the same, and report thereon; before this could be made to the committee, other proceedings were determined upon for the regulation of the collier Pool.

The committee of the coal trade did not exactly agree in the evidence and statements before the port committee, they were therefore permitted to consult on the subject; the result of such deliberation was the following letter:

To *Edward Tickner*, Esq.,
Chairman of the Navigation and Port of London Committee.

Sir, Coal Meters' Office, 28 March 1833.

I AM desired by the deputation of the coal trade who were favoured by a conference with the port of London and navigation committee, to state their great anxiety to meet the wishes of your worshipful committee in endeavouring to find accommodation for all persons frequenting the port of London, and have in furtherance thereof revised and corrected the plan previously presented by them to the worshipful committee, and since returned to them; which plan so revised they now beg to lay again before the worshipful committee, trusting the attention they have given to the general convenience, and the facility thereby afforded to all ships entering the Pool, will meet with general satisfaction. They beg at the same time to call the attention of the worshipful committee to the fact, that the coal trade have from time immemorial (being long before the construction of any docks) been in the habit of using the Pool in common with many other trades, for the purpose of unloading their ships, practical experience having taught them that no plan is so well adapted to celerity as discharging in the stream, as to the ship so discharging and to the barge so receiving the cargo. A clear proof that docks are not suited to the coal trade is given: that notwithstanding a canal or dock is now, and has been for some time open, no colliers or barges ever make use of it for the general purposes of the trade, but alone for coals intended to pass up the canal, or for consumption on its banks.

The coal trade, in laying down the accompanying plan, have strictly adhered to the existing law, reserving 300 feet clear passage; but in so doing, they beg to state their decided opinion, as well as the opinions they have been able to collect from other persons who have known the trade and practice of the port of London for many years, that such reserved space is neither just or necessary, if proper restrictions were placed on all persons bringing large ships through the Pools, and obliging them to drop up, as ships generally entering the port now do; no difficulty of ingress or egress would then be found; but if ships of all sizes destined for one and the same place are to be allowed at all times of tide to come up with the full power of steam, it will become necessary not only to remove the colliers, but all other vessels from the Lower and Upper Pools; but as we cannot for a moment suppose that any one party will be allowed to engross the whole of the river for their own private use and benefit, we are of opinion that 200 feet would afford ample space for transit, and would thereby afford berths to all ships frequenting the port, and requiring to discharge their cargoes in the stream, provided the harbour-masters or sufficient officers be appointed specially to attend to the berthing of colliers and coasters as they arrive, more particularly

particularly in fixing the upper and lower tiers; power being given to them to enforce obedience to their orders, by summary penalty for refusing, and thereby preventing vessels from hauling between any tiers so formed.

From the late alteration in the legislative enactments regarding the delivery of coals, they have been sold in London at an unprecedented low price, and being an article of great weight and bulk, and of the utmost necessity to the inhabitants of this great metropolis, we beg to submit the propriety of giving every facility to the present mode of delivery, admitted on all hands to be the best and cheapest possible method, keeping in view the objects and efforts of the worshipful committee in that respect, as well as the greatest general convenience for the real purposes of the port of London, accompanied by the fact that tiers of colliers tend very materially to deepen the bed of the river, wherever they lay, both by causing a strong current of water under them, and by so constantly breaking the ground with their anchors. Under these circumstances, the trade are of opinion that fixed moorings are not desirable, as from the constant difficulty of anchors getting foul. But should the worshipful committee think proper to make an experiment, the most favourable situation for the trial would be at the upper tier on the north side, thus fixing the spot for the first tier.

The trade beg to refer to the statement contained in their former letter, of the necessity of clearing away the mud on the south side, thereby enabling the ships to lie so much nearer the shore.

It will thus appear on the plan that ample space is found for 228 ships in the following mode:

Rotation 1.	Ratcliffe-Cross, Lower Tier	- - - 16	
2.	Ditto Upper	- - - 18	
3.	Stone-Stairs - - - -	18	
4.	Bell-Wharf Lower	- - - - 20	
5.	Ditto Middle - - - -	- 20	
6.	Ditto Upper - - - -	- 16	(108 North side.)
7.	Mill Hole Tier, Lower - -	- 16	
8.	Ditto Middle - - - -	- 20	
9.	Ditto Upper - - - -	- 18	
10.	Hanover Hole, Lower - - -	- 18	
11.	Ditto Upper - - - -	- 16	(88 South side below tunnel.)
12.	Church-Stairs - - - -	- 12	
13.	Elephant ditto - - - -	- 10	
14.	Prince's Tier - - - -	- 10	(32 feet above tunnel.)
	Total - -	- 228	

Which being the number required for the general purpose of the trade, as it must be borne in mind that although only 150 weighers are employed by the society, a considerable number of ships are daily discharged by the gas companies, as well as some others by persons employing their own weighers.

The deputation beg further to state they are quite ready to prove the state of the Lower Pool is in much better order, and has been so since the formation of the bye-laws by the honourable corporation, than had previously been for many years, and would have been sufficient to satisfy all parties, had not St. Katherine's docks been made in its present situation.—I have, &c. *R. W. Barchard*, Chairman.

Some of the remarks in this letter are so well founded and borne out by facts, that they would at once convince a reasonable mind that 300 feet navigation could not be kept through the Pools, consistent with the rights and customs of the various trades using the Pool, every vessel with its trade being anxious to crowd as near to the seat of business as possible, the city of London. This letter also clearly shows the error of Mr. Home's estimate, "that he considers the coal trade would be satisfied with accommodation for 150 ships."—Quoted by Sir John Hall. In the foregoing letter there is a direct statement from the deputation of the coal trade that they require 228 ships. Let Mr. Home reconcile this difference if he can. Some of the members of the port committee have lately been led to believe, from misrepresentation, that 130 ships are all that is required, and have even argued and voted under that belief. With a view of settling the question as near as possible, the following statement of the number of ships actually required for the trade is adduced from the evidence and statements of Mr. Barchard and Mr. Gillespy, two of the most intelligent and influential men in all the operations of the coal trade.

Ships.	
150.	For 150 weighers employed from the coal meter's office.
5.	15 ships on the average work without a meter; 10 of them in the Regent's Canal, and the remaining five in the river.
5.	Average number remaining in the Pool being sold in part. This number appears to be under-rated, but it is the evidence of Mr. Gillespy.
25.	Worked out each day, and waiting for ballast, &c.
25.	Fresh ships (Mr. Bentley) to be ready for work.
	The list sent from the coal market to the harbour-master's office at Greenwich is 50.
5.	To apply for cauled meters.
215	Total.

Mr. C. Rowland.

23 June 1836.

Out of this number may be deducted, according to Mr. Gillespy, 20 sail, that is, there are usually 15 sail worked off the Tower of London, and five metered for the country; but, on the other hand, a further addition may be made by the "considerable number of ships" worked by their own weighers having nothing to do "with the coal market weigher regulations," and therefore they do not come within cognizance of the coal committee.

The plan of the coal trade here submitted to the port committee is objectionable, for it would appear that to make up their requisite number for the port delivery (228) they require the three moored tiers at Church Hole and before mentioned, to be appropriated entirely for the use of colliers; and they suggest to place three other tiers in situations where there is not sufficient space in the river to admit them.

In the evidence given by Mr. Barchard, coal factor, before the port of London committee, 29th January 1833, "The wants of the coal trade require pretty nearly 250 ships in the Pool. I do not think the town can be duly supplied with coals with a less number than 250 ships. It requires 340 craft for the coal trade each day."

The complaints were again made against the harbour-masters by the same interested parties, and for the same reason, that the 300 feet had not been put in force according to the existing, and still existing, bye-law; but the same impartial conduct which those bye-laws directs to be observed, that the harbour-masters "shall not, under any pretence whatever, give any preference or show any favour or partiality in the mooring or anchoring of any ship, vessel, or steam-boat," was adhered to. However, in consequence of these complaints or assertions, the port committee prosecuted a further inquiry, and on the 12th April, whilst the revision of the bye-laws was under consideration, in consequence of the continual complaints of the obstructions, and of a want of proper attention to the duties of the harbour service, a peremptory order was issued, of which the following is a copy:

"Friday, 12th April, 1833, Thames Navigation and Port of London Committee. Resolved and ordered, that the harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage way of not less than 300 feet are scrupulously enforced, and particularly in the Lower Pool; and that they do not allow at any time a greater number of ships or vessels being moored at the several tiers than is directed by the said bye-laws. (signed) *Woodthorpe.*"

This was sent to the harbour-masters to be carried into effect forthwith; but as the order mentioned more particularly the Lower Pool, the colliers had the benefit of the experiment on the new law. The harbour-masters proceeded in due form, with a line measuring 300 feet, and at the low water the distance was determined, and the vessels within the line were ordered to move, according to their size and draft of water, to other berths, some to Limehouse, some to Deptford. The effect of the order was apparent, that the space of the deep water (where the large colliers were laying) would exclude from that trade all vessels drawing above 15 feet water, as there are no other berths where vessels drawing 15, 17, 18, and sometimes 18 ½ feet water can lay afloat in the Pool.

This proceeding brought complaints from other parties than the St. Katherine's dock company against the harbour-masters, and the order was deemed by the coal trade to be harsh and unnecessary; but the port committee, in their resolution to the harbour-masters, ordered the 300 feet to be scrupulously attended to, particularly in the Lower Pool*. The following regulation was then given to the harbour-masters for their observance, and which was afterwards confirmed by the grand committee. Mr. Deputy Tickner, chairman of the Thames navigation and port of London committee, order for the number of vessels to be allowed in future to moor or lay at the tiers in the collier Pool. The original document is in the hand-writing of Mr. Tickner, and preserved in the harbour-master's office at St. Katherine's tiers.

	Ships.
Hanover Hole Mill Hole, Upper Mill Hole, Lower	58
Cole Stairs or Bell Wharf, Upper	22
Bell Wharf, Lower	23
Stone Stairs	20
Ratcliffe Cross, Upper	16
Ratcliffe Cross, Lower	15
Tiers on the south side, above Ratcliffe Church	12
Stragglers below Ratcliffe Cross	6
Total	172

Extract from Captain John Fisher's, principal harbour-master, report to the port of London committee, dated 30th April 1833: "The resolution of your committee of the 12th instant was put in force, consequently great complaints were made of delay and expense in the delivery of vessels in the coal trade, until an arrangement was made by the chairman to increase the number of vessels in several of the collier tiers, and no complaints have

* The harbour-masters were threatened, in the execution of their duty, with actions at law for the expenses incurred by the coal trade, and demands were made on them, but they were not prosecuted.

have been made as to the state of the navigation, the harbour-masters having as usual acted with the strictest impartiality towards the different trades resorting to the port of London." This regulation appeared to be feasible, and to please all parties. Were the harbour-masters to blame?—The digest of the evidence before-mentioned was produced before the committee, and the report of Mr. Woodthorpe read as follows:

Mr. *Woodthorpe*'s Digest or Report:—"The town-clerk begs to report to the committee that in pursuance of their order he has carefully examined the whole of the evidence which has been adduced before the committee in respect of the harbour-service of the port of London, and more particularly of the regulations of the mooring of vessels in the Lower Pool, and the preserving of 300 feet clear passage for the navigating of ships into the Upper Pool. That he had prepared an abstract of the evidence given by each individual, with figures referring to the short-hand writer's notes, from which he had subsequently prepared a digest or index for the more easy reference of the members of the committee to the particulars of the evidence given, and to the material points as they bear one upon the other. That he had prepared a statement or report upon the several subjects, with comments and observations thereon, but had been much delayed in completing the same by reason of several references from the court of common council, which required great search and his immediate attention, and the commission having issued in the mean time for inquiring into municipal corporations, as by a long period of confinement by illness. That the whole of the evidence appearing to be of so conflicting and contradictory a nature, each person or party taking his own view only of the matter under consideration, and confining himself chiefly, and in many instances entirely, to his own particular interest; that upon attempting to revise his report, the town clerk found comments and observations he had made to have apparently the same tendency, and had extended to such a length, that he was apprehensive they might not meet the views and opinions which members of the committee might have formed upon the subject. And the chairman of the committee having subsequently held a conference with the deputation of the coal trade, at their particular request he had consulted Captain Fisher, principal harbour-master, and Mr. Cousens, the second harbour-master, and has recommended sundry regulations to be tried with respect to the mooring of colliers of the Lower Pool; by increasing the number on the south side of the river, in situations opposite to the usual places of mooring colliers on the north side, which had been removed since the last bye-laws were framed, by reason of the shallowness of the water, and the new entrances that have been made to the docks in that part of the river, so as to accommodate if possible 172 colliers, and by a careful attention to the preservation of a free passage for vessels to the Upper Pool, to the extent of 300 feet, whenever practicable, which, though admitted by all parties to be highly desirable, is not considered by many of the witnesses to be absolutely necessary for the general accommodation of the port of London, but only when large ships are coming up under particular circumstances, which it appears has been tried with very good effect, and has given much satisfaction; no complaint whatever having been since made, but, on the contrary, the most opposing, the St. Katherine dock company and the coal trade, have acknowledged that the state of the river is greatly improved, and there is every reason to expect that by a revision of the bye-laws, that it will not be necessary to apply to Parliament for any further powers in that respect. Another ground of complaint made to the committee was, the neglect of the harbour-masters in the carrying into effect the bye-laws for regulating the port of London; but while a few instances of such neglect or inattention were pointed out to the committee, some of them were explained and testimony was given of the difficulty the harbour-masters have to encounter in their attempts to strictly enforce at all times several of the present bye-laws; and it was acknowledged by several of the witnesses that the Pool was in a much better state within the last 10 or 12 years than before that time; and it is to be hoped that the harbour-masters themselves will remedy that evil, and studiously endeavour to prevent any cause being given for any such complaint in future, by an operation one with another to carry into effect the objects of the bye-laws, in the regulating the different moorings, and preserving a free passage to the utmost of their power. The other principal subject brought under the consideration of the committee, is the removal of the shoals, and the accumulations of mud, which have increased within the port of London. To this it is to be observed, that the corporation of the Trinity-house, who claim to have the exclusive right of raising ballast for shipping, having refused to employ that craft, and men in the removal of any shoal or mud that will not be saleable or produce them a profit, there does not appear to be any fund to which the committee can apply for such a purpose, unless it were thought expedient to apply to the Lords Commissioners of His Majesty's Treasury, and their Lordships felt themselves so to do under the provisions of the Act of Parliament for better regulating and for rendering more commodious the port of London, to appropriate a portion of the tonnage-duty raised upon the shipping coming into the said port, to an object that is admitted by all parties would be essentially rendering more commodious the port of London, and would be the means of affording a more extensive accommodation for the mooring of vessels in the river, which are at times necessarily excluded by the space heretofore appropriated, by the mooring of vessels having been reduced by the powers given by Parliament to the several dock-masters over a large portion of the river, at the different entrances of the docks within the Pool, and the shallowness of the water, created by the shoals and accumulations of mud in some parts of the river.

"The town-clerk has thus therefore only prepared a brief statement of the most material points brought under the consideration of the committee, with a short observation of the committee on each to accompany the abstract of the evidence given by each individual,

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and the digest or index figures referring to the short-hand writer's notes, and which he respectfully submits to the judgment of the committee."

This report, which was drawn up with great care and talent, closed the investigation of 1833 and 1834; and all who heard or have read the evidence must come to this conclusion, that the statements were contradictory and partial, and given according to the views and interests of each individual. What course could the committee take under the circumstances? None but to apply to those officers who have for many years performed their part of the harbour service on the river; persons who have no private interest or private views in the question, but whose ardent desire is to perform truly and honestly their respective duties for the general good and accommodation of all trades and all classes of vessels using and frequenting the port of London. Their opinion has been known for many years on the subject, that it is desirable to have the largest space possible for the purposes of transit, but that transit should not be over-rated or extended for the benefit of one to the probable destruction, expense, or inconvenience of any other trade. The harbour-masters have endeavoured to impress on the minds of the port committee, and on the honourable elder brethren of the Trinity-house, that they should have some discretionary power on these matters, and be answerable for preserving a free passage through the Pools, supported by the law, with proper power and authority for a prompt and effectual discharge of their respective duties.

In reference to plans and calculations lately promulgated, it would be a work of supererogation, after the parties had refused to accept the challenge to an actual and practical survey on the river, to go into the detail of the whole of the erroneous measurements and figures upon which the arguments of Sir John Hall are founded; arguments thus based without strict inquiry or a personal knowledge of the subject, are calculated to make false impressions on the corporation of London and the public, and to make them suppose that the navigation of the river is to be further contracted than at present, and that there is not now a proper navigation generally preserved for the transit of vessels through the Pools consistent with the interest of those using the river. The further statement of Sir John Hall is diametrically opposed to his argument; thus "the number of ships entering the port annually (1834, he says) had increased to 25,365." 20,000 of these vessels annually, or, at least, according to the above statement, in 1834, discharged their cargoes in the river, and in a less space than before the opening of any docks whatever. The port committee and the public must view the subject with feelings of surprise, when they are informed that since the opening of the first dock establishments the trade of the port of London is more than doubled in number, and such increase consequently demands room in the Pools for its accommodation. The harbour-masters have contrived to find berths and stations for them all, that it has been out of the power of the most fastidious navigator to make any positive complaint during the said year, nor has any precise complaint whatever been made to the port committee during the whole of this last investigation.

It is also worthy the notice of the port committee, that according to the returns from the London and St. Katherine's docks, loaded ships of all classes and from all parts of the world, some of them from 600 to 900 tons each, have navigated through the Pool by day and night, without a single accident worthy the notice of being an argument in the investigation to support the assertions "of the crowded state of the river, the obstructions and impediments to navigation, of the aggravated difficulties, &c., &c.

The obstructions to the navigation by mud banks, &c., as complained of by the St. Katherine's dock company, the cause of their not being removed, is fully explained in the town-clerk's digest or report, where the subject is introduced. The shipping of the port of London have lately relieved themselves of the burden of the most part of the tonnage duty, and which Sir John Hall said, in a Committee of the House of Commons, 15th January 1821, "That if they had sufficient funds in hand for the declared purpose of the 39 Geo. 3, c. 69, namely, in maintaining the mooring chains and harbour-master's office, no reason can exist why the trade of the port of London should continue to be burdened with so heavy a tax."

J. W. Buckle, Esq., speaking of the same tax, says, "It is felt to be a very burthensome local tax," (15 June 1821). And yet it is proposed by the St. Katherine dock company (but objected to by the shipowners) to tax the shipping again upon partial and experimental moorings, and in the removal of shoals, mud banks, and dredging the inshore passages between Woolwich and the St. Katherine docks, "that ships of large draft of water may navigate through the Pools at the first quarter of the flood-tide*." Much parade and distinction has been made on the value and importance of petitions presented to the port committee during the late investigation.

1st. By the St. Katherine dock company.
2d. The London dock company.
3d. The inhabitants of Gravesend.
4th. The licensed pilots.
5th. The merchants, shipowners and others (5,700 persons).

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* The London Bridge shoal, not being within the line to the St. Katherine docks, is omitted in the application.

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The 1st and 2d petitions are founded on the principle, that self is the first consideration, and that they want 300 feet to navigate in, but to accomplish this the shipping using the port are harassed, which has the effect of driving them into a dock, or the removal of the trade from the port of London.

The third petition is represented as being from the inhabitants of Gravesend; it may be so, but at the same time the petitioners are proprietors of steam-packets; these packets have proved themselves to be of vast importance to the health, comfort and convenience of the public, but they almost command the shipping to get out of the way, in order that the "Morning Mail" and the "Stars" may be regular to their time at Mr. Blenkarne's wharf at London Bridge. All this may be very correct, but the Chancellor of the Exchequer or the proper authorities should be made acquainted that the Gravesend and other steam-packets use the port more than any other class of vessels, although they pay nothing whatever towards the expenses of the port or the late improvements; yet Mr. Cruden, and these steam-boat proprietors, are desirous of annoying and removing from their ancient berths in the Pools those very vessels that have, and continue to contribute annually to the expenses of the port of London, and have borne a charge in paying a debt due by the shipping to the consolidated fund for port improvements, to the enormous sum of 1,195,598 *l.* 15 *s.* 8 *d.*, independent of the annual expenses of port establishments.

The fourth petition is that of 87 pilots, dated the 20th March 1835. On the 14th July 1835, 19 of these very men signed a counter petition, and out of the 22 persons who certified to the petition of the pilots, four of them are officers in the St. Katherine's docks, and nearly the whole of the remainder, it is stated, have changed their opinions, or desirous of withdrawing their names.

The pilots are too much under the influence of a party, not to wish for 300 feet navigation, and also on their own account; for it is very natural, and the plan is generally adopted in all trades and professions, of getting the work done with the least possible trouble; thus the introduction of steam tugs and the improved state of the Pools, and having no difficulties comparatively to contend with, it is only reasonable that the pilot rates on shipping should be reduced, and that vessels under 250 tons should be exempt from pilotage, and brought up to their destination by a skilful Greenwich waterman, who could perform the service with at least equal judgment, at half the expense. A regulation of this kind has been in agitation at the Trinity-house for some time past.

The last petition to be noticed is that of the merchants, shipowners and others, signed by 5,700 persons; and it is said to be nine yards in length, and representing millions of property. It was stated that this petition had been signed by the labourers in the St. Katherine's docks, and had been displayed in public-houses for signatures; but Sir John Hall, to prove the respectability of the petition, laid before the port committee a list of about 70 names of the most important and influential men in the kingdom; but he did not state at the time that they were principally proprietors of the Katherine's dock, and whose vessels invariably load and discharge in docks. Sir John Hall says, "It is worthy of notice, that notwithstanding a most industrious canvass by the harbour-masters, and although the number of vessels entering the port in one year exceeds 25,000, the signatures of only 171 captains of vessels and of the 128 watermen have been procured to the counter representations." The harbour-masters positively deny that they have ever canvassed for signatures for any petition whatever.

The petitions that were presented from the masters of vessels, pilots and watermen, were free and independently signed in three days, and they are all practical men; but the harbour-masters are given to understand, that had they practised trickery, and the mode stated to have been adopted in getting signatures to this long petition, they might have produced one of any required length.

Remarks on the Port of London Committee, and the Laws and Regulations.

39 Geo. 3, c. 69.

The first powers given by Parliament to the corporation of the city of London was by the proceedings of the port committee, &c. 39 Geo. 3, c. 69, and dated 12th July, 1799, intituled, "An Act for rendering more commodious, and for better regulating the port of London."

The preamble states, "that from the great and progressive increase of the number and size of ships, and other vessels trading to the port of London, the river Thames in the said part is in general so much crowded with shipping, lighters and other craft, that the navigation of a considerable part of the said river is rendered tedious and dangerous, and there is much want of room in the said port for the safe and convenient mooring of vessels and access to them; and whereas great inconveniences are also experienced in the said port for want of regulations concerning the navigating and mooring of vessels in the same."

Section 36.

The Act empowers the corporation of London to make a navigable canal across the Isle of Dogs, for the accommodation of shipping, the money to be advanced from the consolidated fund, and for the purchase of the lease of the mooring-chains between London Bridge and Bugsby's-hole, granted by His Most Gracious Majesty to Peter Lord Gwyder. That after the surrender of the said mooring-chains in the river Thames, between London Bridge and Bugsby's-hole, they shall at all times hereafter for ever be and remain for the use, benefit and convenience of the public.

Section 78.

Section 82.

The harbour-masters appointed by the lord mayor, to produce a certificate from the Trinity-House of the proper qualification of such to execute the said office, and to procure them to be removed on sufficient cause; it further provides, that orders given by the harbour-

harbour-masters shall not extend, or be construed to extend, to lessen or diminish any responsibility of the master or other persons having charge of vessels.

Section 93. Harbour-masters are enjoined to give no preference in the execution of their duties.

Section 116. General compensation clause for the improvement of the port.

Section 154. The general tonnage duties to be applied in maintaining the mooring-chains and paying the salaries of the harbour-masters, and in replacing the monies which are to be advanced out of the consolidated fund in pursuance of this Act, and then in making a fund for maintaining the mooring-chains and harbour service.

Section 164. Upon the authority of this Act of Parliament the committee was appointed by the court of common council, and usually called the "the port of London committee." The time of the committee appointed to carry into effect the provisions of this Act was occupied in arrangements for the construction of the City Canal, in the purchase of the mooring-chains, and in making other regulations for the guidance of the harbour-masters, now appointed for the first time, until the opening of the City Canal for business on the 9th December 1805; the West India docks, 21st August 1802; the London docks, 30th January 1805, and the speedy opening of the East India docks, 14th August 1806. That as soon as these docks should show what space had been occupied in the river by the shipping of the respective trades, they being now forced to have the stream of the river Thames by the compulsory provisions of the Acts of Parliament for each dock, it was soon ascertained what accommodation was necessary for the trade left at liberty to discharge their cargoes at the respective piers, and the necessary regulations to be observed in the port.

Docks opened for business.

The first bye-laws for the port of London. On the 25th June 1806, a set of bye-laws, rules, orders, and regulations were made, ordained, and established, for the good government of the port of London and the City Canal, and for the more safe and convenient navigating and removing of ships and vessels on the river Thames.

Colliers. In January 1814 the port committee ordered the harbour-masters to let all colliers sold and metered into the Pool according to the wishes of the coal trade.

It is by no means necessary to go through these bye-laws or their provisions for the regulation of shipping discharging their cargoes in the stream of the river Thames, but it does appear that the gradual increase of shipping in the port for many years previous, and the probability of a further increase, that it would be highly necessary, and experience has proved it, to increase the number of vessels at each tier. Provisions and regulations were made in the bye-laws, that as circumstances might arise the harbour-masters should have the discretionary power of placing the vessels at the different tiers, according to their fair and impartial judgment.

Collier detention flag at Blackwall. On the 30th November 1821 the harbour-masters proposed a flag to be hoisted as a signal for stopping colliers on the lower station.

On the 22nd May 1823 the harbour-masters, from the many complaints against the steam-boats, and the danger and accidents which occurred, representations were forwarded to the worshipful port committee, and orders were issued for the better regulating of them.

10th November 1824, the Regent's Canal company commenced their complaints against the colliers laying opposite to their canal and dock, thus nominally requiring an exclusive privilege over a portion of the river Thames.

Evidence on the bye-laws. 6th December 1824. The port committee went into evidence on the bye-laws as they then stood, and solicited the opinion of others.

Regulations for the speed of steam-boats. 30th March 1825. Regulations for the speed of steam-vessels at the instigation of the harbour-masters again promulgated.

This improvement in the trade, and consequently in the number of ships resorting to the port of London, was fully realized. The increase was to such an extent, that in 1824 there were 8,000 more vessels to be accommodated in the pools than in 1806, being about three times the number more vessels than those that went into all the different dock establishments.

Complaint of Sir John Hall. The following statement, in a complaint, is curious, as it is an illustration of a dexterous manner of using argument. On the 8th August Mr. Hall, now Sir John Hall, complained to the port committee that certain vessels employed in the foreign trade had been detained at Limehouse, &c., by the harbour-masters. From the vessels not being allowed to proceed to the Pool at once, Sir John states, "is most injurious, because the ships are subjected thereby to second pilotage, watermen, loss of tide, besides the risk to which the ships and their carges are exposed by the delay."

The port committee, in reply, resolved, "That foreign vessels, not having naval or combustible cargoes on board, be permitted to pass up into the Pool, and be directed to the tiers at Cherry Garden, Fountain-Hole, and East Lane only." Upon the same ground, why should not the numerous vessels, sometimes 200 and 300, very rarely under 100, complain of being detained at Deptford, Greenwich, Blackwall, and even further down the river, of its being injurious, second pilotage, loss of tide, besides the risk to which the ships and their cargoes are exposed by the delay? to which may be added the danger and damage the vessels are liable to in laying about at anchor in various parts of the river, and the British trade is at every voyage shackled with the above-named inconvenience.

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The difficulty that presented itself to the harbour-masters was to find stations near the seat of business for the different interests, and at the same time keep a free transit; they made an equal distribution of the trades, but from the thronged Pools, complaints were made by the steam-boats and passage-boats, and to remedy these complaints further accommodation by docks was offered to the shipping in the foreign, coal and coasting trades. The St. Katherine docks alone were constructed, and from that time to the present the committee have been called upon to make laws, rules and regulations for preserving a passage in the first instance of 400, now 300 feet of navigable passage.

Docks.

In the year 1825, the harbour-masters represented to the committee the vast increase in the coal trade, and the confined space allotted for the delivery of the ships; an investigation took place, and, amongst other evidence, the coal trade were consulted on the subject, and it was notified by them that they could not carry on their business without having 250 sail of vessels in the Pool, and that the only convenient place for working was in the present place, and any alteration from the plan would be detrimental to their interests and to that of the shipowners. Many vessels were detained at Greenwich and Blackwall until there was room in the Pool, but a system of letting them proceed upwards in proper turn was wanted, which presented a great difficulty to obtain. A regulation issued from the committee on the 22d July 1825, wherein it was ordered that no more than 250 sail of colliers should be permitted to the Pool at one time. By the same order, notices were placarded in every place likely to be seen by persons connected with the coal-trade, and put on board the colliers as they arrived off Blackwall, that when the collier Pool was full a flag, half red, half white, would be hoisted on the flag-staff at the Blackwall end of the City Canal, and that all colliers should immediately bring up either at Blackwall or Greenwich, and not remove from thence until they obtained permission from one of the harbour-masters; notwithstanding this regulation, vessels got permission to go up into the river upon the representation that their cargoes were sold, and they must go into the Pool to deliver. The harbour-masters had no check upon any misrepresentation; at last a book was furnished at the Blackwall office, where the vessels' names were entered on their arrival, and permission granted by this list, which was equally faulty. The coal shipowners complained of expense and detention, the coal-merchant was often disappointed in the delivery by the ship being detained below; the meter was frequently sent to a ship which was not to be found in the Pool, the day's work was lost to him and his men, and the captain of the collier had to pay for the "baulked day." Several parties applied to the Lord Mayor on the subject, and they were referred to the port committee; an investigation followed.

Regulations for the coal trade.

Detained colliers.

250 colliers allowed to be in the Pool at one time.

Collier flag approved of by the port committee.

Expense and detention complained of by the collier owners.

The causes may be traced to an increased demand for coal and the introduction of steam-boats. The navigation through the Pool had hitherto been considered as a passage on the flood-tide for the arrivals and the ebb-tide for departures; a new era in navigation was established, by which the largest vessels were driven against wind and tide, and therefore the Pools required a vigilant superintendence and management.

New era in the system of navigating through the Pools.

The first investigation was immediately after the passing of the Act for the construction of the St. Katherine docks, for it was evident from the examination that took place in the House of Commons on the various proposed docks, that unless collier docks or some other method was adopted for the regulation of the Pools, that it would be next to impossible for the St. Katherine dock company to transact the business of the free trade to India, or receive any class of shipping above a medium size.

Investigation before the port committee.

Remarks on the navigation to the St. Katherine docks.

Sir John Hall very wisely complained to the committee of the crowded state of the Pool, as described in his "Observations" which had been addressed to the committee. His letter was published, and sent to each member of the corporation in a printed form.

Complaint of Sir John Hall to the port committee, dated 21st Sept. 1827.

The letter complains, in the first instance, of shoals, mud-banks, and requiring a passage of not less than 400 feet.

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The manner in which the vessels have been moored in the collier Pool, &c., after which his favourite plan of mooring colliers on Cuckold Point and down the south-west shore of Limehouse Reach to Deptford, and concludes his arrangements with the following observations: "but this I suggest more as a temporary expedient than with a view to any permanent measure, although it must be obvious from the great increase which has taken place during the last few years in the number of colliers which frequent the port, (1,800 more having arrived in 1827 than in 1818), that unless a collier dock be constructed, the increasing evil cannot find an adequate remedy."

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"The port now regulated is inadequate to the accommodation of the increased and increasing shipping resorting to it; and notwithstanding the additional means which are in progress, it will still remain incompetent to the great purposes of its extended commerce, unless the stations for colliers be enlarged."

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This is the language of Sir John Hall in 1827, and if the difficulties of navigation and the incompetency of the port for its trade as described by him existed then, how much better the Pool is regulated in 1835, when there is not an atom of evidence to prove that by the mooring of vessels the Pool has been once obstructed, notwithstanding a further increase of about 280,000 tons of coals annually.

Regulations were made for the speed of steam-vessels through the Pools, and that each vessel navigating after dark should display a strong light under the bows and another at the mast-head, to prevent accidents.

Regulations for the speed of steam-boats, and to display lights after dark.

Investigation by the port of London committee on the complaint of Sir John Hall.

The investigation above alluded to was continued from time to time until the latter part of 1828, giving every person an opportunity of stating any complaint to the committee, when they came to the determination to apply to Parliament for further powers, and to amend and alter the powers of the Act of the 39th Geo. 3, rendered necessary on account of the sale of the City Canal and premises to the West India dock company, which had been done by the Lords of the Treasury, by a short Act of Parliament introduced by them early in the session.

Determination of the port of London committee to obtain other powers.—Sale of the City Canal to the West India dock company.

Act 10 Geo. 4, c. 124, obtained.

Bye-laws made.

Approved by the common council.

Elder brethren of the Trinity-house.

Judge.

To the Act of Parliament applied for by the committee, the Royal Assent was given on the 19th June 1829, 10th Geo. 4, session 1829. In 25 days afterwards, being the 14th day of July, the bye-laws had received the sanction of the committee and passed through the court of common council; on the 6th August the approval of the master, wardens and assistants of the Trinity-house was obtained; and the approbation of the Right Hon. Sir Nicholas C. Tindal on the 24th September 1829, from which day was established the "Bye-laws for the Government of Harbour-masters of the Port of London."

These bye-laws, although investigation upon investigation had taken place on them during five years Parliament had been applied to for extended power, and every exertion used theoretically to render them perfect, notwithstanding when they became a law the most part of them was a dead letter, from the impracticability, as before shown, of carrying them into effect without harassing and doing an injury to the trade of the port of London.

Bye-laws failed in their operation.

Harbour-master's office at Greenwich established.

The anticipated operation of the bye-laws having failed, other regulations were made by the committee for the benefit of the navigation and the general accommodation, by the facility afforded at the newly-established harbour-master's office at Greenwich.

Moorings in the Upper Pool spanded together.

In December 1829, the port committee ordered the moorings in the Upper Pool to be spanded together, in order to preserve a 300 feet navigation, if possible.

Collier detention flag, and office at Greenwich.

List of cargoes sold at the coal-market, first sent down to the harbour-masters at Greenwich.

Regulations adopted by the harbour-masters.

The sale of the City Canal deprived the harbour-masters of their office and the flag-staff at Blackwall; another office was taken at Greenwich, and to facilitate the business of the port, regulations were adopted which has tended in a great measure to allay the evils complained of. The flag for the detention of coal-vessels was hoisted at Greenwich, a more central situation than at Blackwall; a list was sent from the coal-market, 3d April 1829, and is still continued, of the names of all the ships that were sold in each market-day, and the number required for work in the Pool, therefore the harbour-masters were prepared in some degree to let into the Pool only those ships that were actually required to carry on the coal trade; and by a regulation lately adopted at the coal-market, of selling the ships in turn as they arrive at Gravesend, the harbour-masters receive a list of them, by which they are enabled to comply with the wants of the trade in a regular manner. If further proof is wanted that the coal trade does not require 200 sale of ships, why have the coal committee requested 50 sail of vessels between each market days to be permitted into the Pool in addition to the ships sold, on which near 150 meters or weighers are always at work?

Examination of the members of the coal committee.

Colliers required in the Pool.

When the committee of the coal trade was examined on the subject before the port committee, they stated that the meters at work in the "Lower Pool were about 130, and the remainder in other parts of the river; that they required more ships in the Pool to be ready for work," "and that those that had just worked out were also in the Pool waiting for ballast, but on the two latter subjects the harbour-masters were the best judges." (*See* the previous statement of the required numbers.)

Much stress has been laid on this subject in consequence of the trouble and anxiety which has been manifested throughout the investigation, of allowing no more than 130 ships in the Lower Pool, because it was stated that that number was all that was requisite for the purposes of the trade. To legislate on this fallacious position, and reduce the number of ships in the tiers, would be doing an injustice, and create a great expense to the merchant and shipowner in the coal-trade.

Investigation by the navigation committee on the bye-laws.

On the 11th January 1833 the bye-laws were again under the consideration of the committee, and evidence heard from all parties interested in the port of London, which occupied the committee the remainder of the year.

Investigation on the bye-laws by the navigation committee.

Memorial of the St. Katherine dock company.

Sir John Hall's plan for mooring colliers on the south side of the collier Pool.

In 1834 they were further engaged on the same subject, and in communication with the elder brethren of the Trinity-house; the amended bye-laws were presented to the court of common council, but in consequence of the memorial of the "St. Katherine dock company," dated the 28th May 1835, signed "John Hall, Secretary," they were referred back for further consideration, and to examine a plan, said to be an improved plan for mooring colliers in the river Thames, but which was proved before the committee to be fraught with danger to the shipping, and would increase the difficulties at present experienced in navigating through the Pools.

The same withdrawn.

The investigation of the plan, and the erroneous detail of the same, has not been touched upon, it having received its author's own condemnation, and withdrawn by him from further examination.

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The worshipful Thames navigation and port of London committee have at all times been ready to hear, to examine into, and decide upon the merits of all statements submitted to them; it has always been their anxious study to remove, as far as practicable, the cause of every complaint, whenever a remedy, founded on justice, could be applied. In this crowded river, and where so many interests are concerned, each interest rubbing against the other, all anxious to obtain their wishes, it is not a matter of surprise that the harbour-masters are rewarded by the charge of neglect of duty, when each individual in the following list lays the blame upon those gentlemen that all their views and objects are not complied with. Remarks on the complaints made in the port of London by the conflicting interests.

St. Katherine's dock company complain of vessels navigating and driving with the tide, being an obstruction of shoals, mud-banks, the regulation of the Pools, and the want of at least 300 feet navigation, and mooring lumps to secure it. St. Katherine's Dock company.

London Dock Company.—That Capt. Maughan, their dock-master at the Shadwell entrance lock, cannot see down the navigation clear of Cuckold's-Point when any vessel is coming up to their dock, and that the colliers are not moored to enable him to do so, notwithstanding they have taken into their limits a space from the river where 50 colliers formerly delivered their cargoes at one time. London Dock company.

The Grand Surrey Canal.—That the colliers lay their anchors too near the entrance, and occasionally in the way of vessels going in and out of the dock. Grand Surrey Canal and Dock company.

The Regent's Canal.—The same complaint as the Surrey Canal. The Regent's Canal and Dock company.

The Thames Tunnel company complain if a vessel should let go an anchor near their works. The Thames Tunnel company.

The wharfingers complain that there are so many vessels in the Pools and between the tiers, that they cannot get their vessels in and out from their wharfs. Some of them have actually applied to have the moored tiers in the river removed, to enable them to let a steam-packet come to a wharf once a week. The wharfingers.

The coasting vessels complain that they are between the tiers; that they cannot work or get their barges in and out. The coasting trade.

The watermen complain of the injury done to their boats, risk of the lives of themselves and passengers by steam-boats, of occasional stoppages of in-shore passages by the numerous craft moving up and down the river (in the course of each day about 1,200), and sometimes a ferry may be stopped. The watermen and lightermen.

Steam-boats complain that sailing vessels should be allowed to drift with the tide; that barges should not be navigated in the same manner, nor by one man, but by four, and always to be end on; that all vessels discharging their cargoes in the stream are a nuisance; that some of the mooring-chains (which are public property) should not be exclusively given up to them; that there are shoals and banks in the river. The stock of an anchor in the stream, accidentally capsized, is matter of complaint, and that vessels do not get out of their way when employed as tugs or regular passage-boats. The steam-boat proprietors.

Colliers complain of having the space formerly allotted to them taken away by the London dock, Grand Surrey Canal, and Regent's Canal dock companies, and the harsh system of imposing a fine should they by accident or for a little accommodation to themselves, encroach upon the dock limits; of the damage they receive by steam-boats, and vessels towed by steam; that they are unwarrantably detained at Deptford, Greenwich, and Blackwall, and of the detention and expense attending the same; that they are harassed by the dock company's regulations at the West India dock, at Limehouse, Commercial dock, Greenland dock; by orders to remove from off the Red-House and dock-yard at Deptford, off Greenwich and Deptford, by the steam-boats going to and from their piers all day. At the Folly-House, by steam-boats. At Blackwall, by the dock-masters; at the second entrance to the West India dock, and also at the East India dock; if they lay in the intermediate space between these docks they are in the way of the Brunswick steam-wharf: in short, that they have now more annoying regulations to contend with, and more expenses than any other trade in the port of London. The colliers.

On the other hand, the West India dock company, both at Limehouse and Blackwall, the Commercial and Greenland dock company at Rotherhithe, His Majesty's premises at Deptford, His Majesty's ships Dreadnought and Iphigenia, with the steam-packet companies at Greenwich, the steam-packets at the Folly-House, the Brunswick steam-packet wharf, the East India dock company, and even further down the river, complain of the colliers being in their way of business. A variety of complaints.

The pilots complain that the river below is frequently worse than the Pools, for they lay at anchor in various parts of the river as low as Gravesend.

It is quite enough to mention the complaints of our own countrymen, without enumerating others made by foreigners in the port. The foreigners.

It should be borne in mind that these complaints are brought to the harbour-masters to remedy, and unless they immediately comply with the wishes of the complainant, such refusal is designated a neglect of duty of the harbour-masters, and is a sufficient argument for the port committee to go into the whole subject, as they have already done from time to time down to this last month; and what is the conclusion? that the harbour-masters Complaints brought to the harbour-master for a remedy.

have done their duty, and have acted in a fair and impartial manner to all the trades resorting to the port of London.

Accusation against the navigation committee.

It will be seen by this statement, that the assertion, "That the port of London committee have declined to hear your memorialists upon the particular and important points referred to, and also refused to afford the information requested, or to pay attention to the recorded opinion of the pilots, dock-masters, shipowners, wharfingers and others," is totally unfounded, and it is hoped that the evidence already produced will stamp the assertion of those who have charged the port committee with want of attention as a wilful misrepresentation.

Sir John Hall.

Sir John Hall, on the contrary, has received more attention, and occupied more of the time of the committee, and also of the harbour-masters, than any other man connected with the port of London; and his only complaint can be, that he was not consulted or informed when the committee came to their decision on the various important subjects submitted to their impartial investigation.

Petition of the St. Katherine dock company.

The petition of the St. Katherine's dock company lays its foundation upon "A free and unobstructed passage for shipping, through the Pools, of not less than 300 feet, which should be preserved at all times."

What has been the average width of channel at low-water, since last Christmas?—From 200 to 250 feet.

Has any obstruction to the free navigation occurred during that time, on which a complaint could be founded, notwithstanding vessels of all sizes up to 1,300 tons have passed through the Lower Pool?—None.

Obstructions.

Cause of obstruction.

But obstructions have occurred to steam-boats from the circumstance of those vessels having the power to navigate in a much more rapid way than those that are of necessity compelled to lay athwart the tide; and whether there was a passage of 250 or 400 feet, the same description of obstruction will exist, and at particular seasons neither one nor the other can be kept; it is therefore reasonable, that if 250 feet channel will accommodate a very essential trade in the Lower Pool, and 200 feet in the Upper Pool, for the rest of the trades using and discharging their cargoes in the river, according to their usual custom, it should be unhesitatingly granted to them; for should a distinction be drawn, they hold the superior right to the conveniences of the port of London.

Sir John Hall.

It is universally acknowledged that Sir John Hall, secretary to the St. Katherine's dock company, has acted with great talent and zeal in the performance of his duty to the company, and that much credit is due for the uniform perseverance, during ten years he has advocated their cause, in the removal of obstructions, and in giving facilities to vessels bound to St. Katherine's; but these obstructions now complained of were, by his own statements, in existence long before the project of the St. Katherine's docks were in agitation, and of which the proprietors were well informed by the Parliamentary and other investigations before they advanced their money on the speculation; and clearly with this position before their eyes, that unless the different branches of trade were removed, or not allowed to discharge their cargoes in the stream of the river, the passage of large ships to their docks would be through a narrow channel, and consequently difficult and dangerous, not only to the ships themselves, but also to the smaller vessels navigating and lying in the port. It is self-evident that the greater space in a river way is desirable, but that space should be regulated according to the necessities of the trade using the port, and also so long as vessels are permitted to deliver their cargoes where they now do, so long will obstructions to the navigation be found to exist, such being necessary and part of the system, in the operation of conducting a vessel to its berth or destination.

Proprietors of the St. Katherine's docks.

Space for navigating desirable.

The only evidence on the subject of 300 feet, beyond the petitions and petitioners is, that it is desirable to have not only 300, but 400 feet if possible; and it appears that such cannot be granted to one without committing a serious injury to many other parties.

Navigable channel to be 250 feet.

The honourable the elder brethren of Trinity-house have examined into and discussed the subject, and are of opinion with the worshipful Thames Navigation and Port of London committee, that the navigable passage through the Pools should be 250 feet.

1909. Mr. *Alderman Wood.*] Has the formation of the St. Katherine's docks effected any decrease in the obstruction of the Pool?—None whatever; on the contrary, it has rather increased the difficulties of navigation through the Pool.

1910. For what reason?—The reason is by bringing larger ships through that portion of the river which was held entirely for the delivery of the trade of the port of London; the navigation in consequence of those large ships has been kept open to a much larger extent than it was before the establishment of the St. Katherine's docks. From the improved state of the navigation, the vessels bound to St. Katherine's docks have been enabled to come up three abreast, occupying a space of about 100 feet, directly through the stream of the navigation of the river Thames, and without obstruction.

1911. To

1911. To what time does that refer?—I think I have observed it on several occasions, more particularly during the last two months.

1912. Mr. *Angerstein.*] Would it not become the duty of the harbour-masters to prevent three ships coming abreast; would not they have authority to prevent that?—I do not consider we have any authority to prevent that.

1913. I understand you to say three merchantmen came up the river abreast?—I beg pardon; I said that several vessels came up to the St. Katherine's docks navigated in that manner; I do not say three merchant vessels abreast; it was one merchant vessel and two steam-vessels, one on each side.

1914. Mr. *Alderman Wood.*] Was not a considerable number of tiers displaced in order to make the entrances into St. Katherine's docks?—Yes; not less than five tiers.

1915. How many vessels will those contain?—Upwards of 40 sail of vessels.

1916. If those 40 vessels were changed 26 times in the course of the year, the number would be very considerable?—Yes, very considerable.

1917. Will you tell us the number?—It appears by that calculation to be 1,040 in the course of the year, that is taking the less number; of course something must be deducted in the number of vessels in the tiers, which are now formed in steam-boat tiers.

1918. What was the total number of vessels which arrived into the St. Katherine's docks last year?—I gave that evidence on the last day of examination; upwards of 400 will be the vessels that entered the St. Katherine's docks from foreign ports; I have no means of ascertaining the number that went into the docks altogether. Those from foreign ports, I have taken the trouble to extract from the bill of entry at the custom-house, and I gave it in evidence on a former occasion.

1919. Have the vessels taken into the St. Katherine's docks assisted to clear the Pools?—Decidedly not.

1920. Is there not a considerable number of large steamers employed in the foreign trade, who load and unload within the stream?—A vast number of them, and many of them are of an enormous size.

1921. Is it in all parts of the stream down below, or above?—It is principally in what is termed the Upper Pool, where those vessels discharge; the vessels belonging to the general steam navigation company, and other vessels employed in the foreign trade and coasting trade, discharge their cargoes in the Upper Pool. It is a very curious feature in reference to these steam-boats, that His Majesty's ship Bellerophon, of 80 guns, measures 1,613 tons, is in length 168 feet, and beam 46 feet 10½ inches; and the Thames steam-packet in the Dublin trade is by her late registered tonnage only 331 tons, and yet she is 167 feet 3 inches in length, and 47 feet beam, within 9 inches of the length of an 80-gun ship, and broader in the beam, and vessels of this description are now navigating at all times of the tide in this narrow pool.

1921*. Is there accommodation for such vessels in the St. Katherine's docks?—None whatever; I believe the entrance lock is only 45 feet in breadth.

1922. Mr. *Crawford.*] No steam-vessels enter any dock?—No; from this circumstance, they cannot enter without taking off their wheels; small steam-vessels go into the East India docks, and the West India south dock, and into some of the other docks to repair or lay up.

1923. The *Lord Mayor.*] Are you aware that any considerable injury has happened to property afloat between Deptford and the Tower?—The property afloat receives a vast deal of damage from other large ships and the perpetual traffic of steam-boats; such is the constant anxiety of steamers to get forward on the voyage, that a frequent disregard is paid to boats and craft by the absence of attention to the regulations for the speed of steam-boats, that considerable injury and damage ensues, and likewise to the wharfs and property along the banks of the river.

1924. Captain *Alsager.*] Have you ever heard it discussed any amount of damage per-centage that a collier receives while afloat; has that ever entered into your calculation?—In 1824 it was a matter of great calculation, and I think the average amount of damage, wear and tear, and detention, was estimated at about 5*l.* per voyage.

1925. Mr. *Angerstein.*] How many voyages may they make in a year?—From 11 to 13 voyages, a regular collier, but at this period of the year, the summer season, they go into the Baltic, and foreign trade to America, and the colonies,

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but in the winter time they are employed in the coal trade; now these vessels are of the largest description of colliers, vessels drawing from 17 to 20 feet water, and their absence is in a great measure the cause of a good Pool.

1926. On an average they make from 11 to 13 voyages a year?—A regular collier will do so.

1927. Mr. *Crawford.*] Do you consider the formation of the St. Katherine's docks an improvement or otherwise to the general commerce of London?—In reference to the navigation of the river Thames, I should say it was decidedly against the commerce of London.

1928. Do you consider the formation of St. Katherine's docks an improvement or otherwise to the general commerce of London?—Speaking in the capacity of a harbour-master, I only know that part which refers to the river Thames, therefore I should say it operates as an injury to the port.

1929. How does it operate to the injury to the port of London?—By the detention of vessels out of the Pools, and crowding them in other places.

1930. It brings larger vessels higher up the river, which did not before come there?—Exactly so.

1931. Is that the nature of the injury?—To enable those vessels to come to St. Katherine's docks, a larger space is kept open in the river Thames; and the vessels that are kept out of the Pools for the purpose of keeping that space open, to them it is a vast injury and detention, for their laying out of the Pools is at a great risk to the vessel, and expense to themselves.

1932. If vessels did not require to come to St. Katherine's docks, then the space now required would not be wanted, a less space would be sufficient?—I should say it would be required on the general principle and extent of the steam navigation; the facilities of access to London by the steam navigation would require the space, independent of the St. Katherine's docks.

1933. Mr. *Angerstein.*] Do not you think if steam-vessels of sufficient power being applied to the head of a ship coming up to the Pool would be an advantage to the navigation, instead of two being applied, one on each side?—In one sense it would; a steam-boat when she is a-head of the vessel, obviously takes up less room than when alongside. So far it is an advantage to the river Thames; but when the two steam-boats are alongside they not only have the power of propelling that vessel a-head, but they also have the power of backing her astern in case of any difficulty presenting itself in the navigation.

1934. The *Lord Mayor.*] Have not a large fleet of coasters been removed to afford accommodation to the entrance of St. Katherine's docks?—Yes.

1935. Now presuming this fleet of coasters were removed for the accommodation of St. Katherine's docks, would it not be absolutely necessary to keep the space now for the accommodation from an increase of steam navigation?—No question; and to that extent the accommodation of the river is lost; but it is not simply with reference to the St. Katherine's docks, but also to the entrance to the London docks at Shadwell.

1936. Are you of opinion that that radius of 1,000 feet is unnecessarily large for the London docks at Shadwell?—Six hundred feet is the radius allowed by Act of Parliament to the London docks; 300 feet for the St. Katherine's docks.

1937. Mr. *Angerstein.*] What is the actual distance between the lock of the London dock and the lock of the St. Katherine's; the distance from the entrance of one dock to the other?—It is upwards of a mile; but there are three entrances. I presume you mean the new entrance?

1938. The upper entrance?—Not above a quarter of a mile.

1939. Mr. *Crawford.*] Before the formation of the St. Katherine's docks it was necessary to keep the Pool clear up to the London docks?—To the Wapping entrance, not to the Hermitage; the upper entrance has never been made use of to admit shipping till lately; and I believe it is closed again.

1940. The upper entrance was solely applied to vessels going out loaded?—Generally speaking it has never been used for that purpose; but it is held available in cases of fire. It was found that one entrance in that neighbourhood was sufficient for vessels going in and out of the London dock, and the tiers opposite in the river have never been removed till lately from before that entrance.

1941. What is the distance from the middle entrance of the London docks to the St. Katherine's docks?—About three quarters of a mile.

1942. And the lower entrance?—Is about a mile and a quarter.

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1943. Captain *Alsager.*] When vessels are coming up the Pool, where do they come under your control?—We are, under the authority of the 10 Geo. 4, c. 124, made harbour-masters of the port of London; we therefore consider the shipping are directly under our control as soon as they enter the port; but according to the bye-laws, the daily duty and the jurisdiction commences at Bugsby's Hole between Blackwall and Woolwich.

1944. Can you compel them to let go anchor there?—Decidedly not; so long as they are under weigh they are considered by the law-officers of the city to be under no control of the harbour-masters; they have no power to enforce obedience in any immediate case.

1945. The *Lord Mayor.*] Might not the large number of colliers and other vessels that are moored at Deptford and Greenwich, when there is not accommodation in the Pool, might they not go into the Pool and become moored; and it is only by giving them 12 hours' notice that you could remove them?—Decidedly so.

1946. It is an act of courtesy on the part of the coal trade which allows you to keep the Pool in the state it now is?—Exactly.

1947. And you put a flag up, and when that flag is flying the colliers know the Pool is full?—Exactly.

1948. And they cannot come up?—Yes.

1949. That is a sort of mutual understanding; for the accommodation of all parties, particularly the coal trade and the convenience of the harbour-masters they do that?—And I must say the coal committee have acted towards the harbour-masters in the kindest manner on all occasions; they forward lists and give every information from the coal market, and afford every facility to carry the regulations into effect.

1950. Captain *Alsager.*] Supposing the flag is flying, and they choose to come up, have you any power to stop them?—Not immediately; we have no power to control them till they put their anchors down; then we give them 12 hours' notice, according to the existing bye-laws. So long as they do not infringe on the 300 feet, and the number in the tier, they may even disobey the written orders of the harbour-masters under those circumstances.

Mr. *Thomas Brocklebank,* called in; and Examined.

Mr. T. Brocklebank.

1951. The *Lord Mayor.*] YOU reside at Westcomb Park, in the county of Kent, I believe?—I do.

1952. Are you shipowner, lighterman, and managing director of the general steam navigation company?—I am.

1953. How long have you known the navigation of the Pools?—About 50 years.

1954. In your experience, what is the state of the Pool now, or within the last few years, to what it was formerly?—I call the Pool almost a pond instead of being a pool. I mean to say this, that the Pool now is fit to do any sort of business in, and has been for some time past, to what it was formerly.

1955. What time?—For these five or six years.

1956. Do you consider that there have been many obstructions in the Pool?—I have seen no particular obstruction.

1957. Have you heard many complaints?—I have heard a hue and cry lately among the lightermen and the St. Katherine's dock company.

1958. Do you think those complaints were unfounded?—I am convinced they are quite unfounded.

1959. From your intimate connexion, as managing director of the general steam navigation committee, does that call you into the Pool frequently?—I am in the Pools nearly the whole of the day, backwards and forwards.

1960. For how many years past?—These 50 years.

1961. As managing director of the general steam navigation company?—I have been managing director about 10 years.

1962. You have been in the Pool almost daily?—Yes.

1963. You have found the Pool during that time occasionally obstructed?—[illegible] are coming up there must be room for them. A southerly wind and south-west wind, a flood-tide and ships coming up, they will all pour into the Lower Pool at the same time, and there must be an obstruction.

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1964. Have the obstructions which have been complained of arisen from the state of the wind and weather, rather than intentional misconduct on the part of officers?—What officers?

1965. The harbour-masters?—I have always seen the harbour-masters paying attention to their duty, and I have taken particular notice of that.

1966. Is the foreign trade by steam great?—It is getting considerably larger than it was. The greater part of the Hamburgh, Rotterdam, Belgium and the Calais trade is now carried on in steam-boats.

1967. All the foreign steam-boats discharge and load in the stream?—They do, nearly so, in the river, about the Custom-house.

1968. And all the steam-boats plying coastwise?—Yes.

1969. Is there any dock in the port of London that can admit a large steam-boat?—I do not know of any, when they have their wheels on; and it would not do to take them off every voyage.

1970. If the present bye-law of the port of London, which states that the clear navigation of 300 feet should be kept throughout the Pool, the Lower and Upper Pool, if that was strictly adhered to in the Upper Pool, would it impede the trade of the general steam navigation company?—I should as soon recommend that you should put a pair of gates at Gravesend, and stop all the ships coming up to London, as put that law into effect.

1971. Are you aware that any informations have been laid against the general steam navigation company?—I have of one, and which, I think, ought not to have been.

1972. From your long intimate acquaintance with the river Thames, have you ever turned your attention to the subject of collier docks?—I have heard of collier docks, but I always considered the construction of them would be the greatest cruelty inflicted on the labouring people that could ever be attempted.

1973. On what account?—There must be a rise on the price of coals; and, another thing, if you were to take the colliers out of the river, the river would soon fill itself up.

1974. Inform us the ground of your opinion as to the river filling up if those colliers were removed?—I am convinced it would fill up, and I know it by practice. I know now, where ships used to be lying drawing 15 and 16 feet of water, that since the docks have been made, and the West Indiamen gone in, there is not five feet.

1975. Describe any particular point of the river where that is?—Nearly abreast of the Thames Police-office, where the Lord Sheffield used to lay at low water, drawing 17 feet, it is now nearly dry at ebb.

1976. Presuming vessels of small draught of water were to lie there, do you think the course of the river would deepen?—I have no doubt of it; the tide running under the ship's bottoms would work itself away; I have no question that Government, if they should ever want the Red-house for the employment of their transports, it would cost them 50,000 *l.* or 60,000 *l.* to clear it away.

1977. Where is that situated?—At Deptford.

1978. Then the present orders of the Government, or the parties connected with Deptford dock-yard, act injudiciously in not allowing vessels to anchor there?—I am convinced of it.

1979. If this country were actively engaged in war, it would be a great cost to the country to render it available?—I have no doubt of it; it would cost the country 50,000 *l.* or 60,000 *l.* to remove the mud away.

1980. Are you aware of any increase, in any part of the river, of any shoals latterly?—I have not had occasion to take particular notice of it.

1981. Captain *Alsager.*] Do you think your knowledge is equal to a man taking coasting vessels or small vessels up every day as a river pilot?—I am as able to take any coasting vessel up as any river pilot.

1982. Are you capable of forming an opinion on the channel as to the depth of water?—I have no sort of doubt of it.

1983. How do you account for the evidence given by the river pilots, who have asserted one after the other, that there is not a foot of difference or no difference in the river these 40 years?—I do not know what their evidence may be; I have given my own practical knowledge.

1984. Mr. *Angerstein.*] If collier docks were established in any part of the Pool,

Pool, might not the ballast be taken into craft, and so supplied at the opening of such dock?—I do not believe that; my conviction is, that you would hardly be able to clear it away; and you would have as much impediment to the navigation in the quantity of ballast lighters taking it up as the colliers are; my conviction is that the collier docks would never do to be at the lower part of the river; it would be an enormous expense, and would inflict on the labouring man a very heavy tax.

1985. Mr. *Crawford.*] By what means?—The ships could not go into docks without a heavy expense.

1986. Are you of opinion that the adoption of collier docks would very much enhance the price of coals?—Yes.

1987. Mr. *Angerstein.*] Have you formed any opinion as to the additional charge?—I have not; I know well when they used to be at the Bell Wharf tier, and Ratcliff Cross tier, and Stone Stairs tier, I have seen 20 to 30 sail of West Indiamen lying in the tier, and the colliers outside, and then there was room enough for the ships to go up and down the river.

1988. Are you at all aware what the average damage done to a collier is from lying in the river?—I have seen something of it; but I know it is very much exaggerated.

1989. Have you formed any opinion as to the amount?—No, I have not; but I am convinced the damage done must be little.

1990. Mr. *Crawford.*] When the navigation was opened, before steam-vessels were in vogue?—And before the docks, the West India docks, the London docks, and the St. Katherine's docks.

1991. Then the navigation was perfectly open at the time; there was no West India docks, London docks, nor St. Katherine's docks?—Yes, I could always find my way up and down; I have many times gone up with two barges loaded, myself, through old London Bridge; and now an old woman might make a lighterman, the river is so clear.

1992. The present obstructions in the river are occasioned by the formation of the London docks and St. Katherine's docks, by ships coming to them, and large steamers coming up the river?—I do not know any particular obstruction now from the ships coming up; they are stowed away in half an hour; the hue and cry is from the pilots, who are too well paid, and Sir John Hall; I have no doubt of that.

1993. From passing so constantly through the Pool, are you able to say that a water-way of 300 feet is generally kept?—No, I do not consider it necessary.

1994. Are you able to say that that water-way is kept?—It cannot be possibly kept at times; and for this reason; to-day is a westerly wind, in the night it chops round to the northward, and at the top of the tide the colliers will all settle over to the southward. Over night there may be 400 feet, but in the morning not 150.

1995. Mr. *Angerstein.*] Have you observed any alterations in the regulations of the Pool within six months or two months?—I have seen none.

1996. Mr. *Crawford.*] The Pools do not appear to you to have been kept more clear within the last two months than any former time?—Not at all; when a large fleet of ships comes up, it makes a difference, as they have to drive with the tide through the navigation.

1997. I am only speaking as to the Pool; you do not see any alteration for the better within the last two months?—I have seen no sort of obstruction at all.

1998. You do not see more space?—I have seen as much space before; I came through the Pool to-day, and I saw as much impediment in Limehouse-reach, as ever I did in the Pools, owing to the colliers going down; it was hardly possible to come up Limehouse-reach.

1999. You do not think that the Pool has been more clear of obstructions during the last two months than any former period?—I have not taken any particular notice of it at all. As far as my judgment goes, I do not think there is any difference; in the Upper Pool there wants a little alteration; there is not 300 feet between the moorings.

2000. Mr. *Angerstein.*] Do you think any improvement could take place with regard to the moorings?—My firm conviction is, that the mooring of colliers, let it be wherever it will, you never can moor them better than those practical

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men. There are no better sort of men come into the river than the masters of colliers; they will place their anchors better and put their ships in a snugger way than any sort of accommodation you can make for them.

2001. Mr. *Crawford.*] You do not consider it an improvement to have mooring chains?—I consider it a great impediment and a great obstruction.

2002. How would it be an obstruction?—In getting ships in and out of the tier, and also craft.

2003. Mr. *Angerstein.*] Have you seen any of the proposed plans for mooring?—No.

2004. The *Lord Mayor.*] Now as a practical lighterman, can you speak as to whether the lighters are sufficiently manned in the river at the present time?—The lightermen might keep under weigh better. I have 30 barges at this present time, and when I tell you I have not had an accident of any sort or kind from any of the steam-boats, you must think it is some sort of care that prevents that; my lighters are passing up and down every day, therefore I am quite in the way of steam as much as anybody; I think a great deal of good might be done if the lighters were kept better under weigh.

2005. I ask you whether they are sufficiently manned at the present time?—I should say so.

2006. Do you think it requires two persons?—I have gone with a lighter of 70 tons of iron, myself, many a time from the Steel-yard, and gone to Mr. Warburton's wharf with two barges of deals 50 times.

2007. Mr. *Crawford.*] Would you expect any servant to do that for you?—I have servants that do it; they can do it now much better than they could then, when the old London Bridge was in vogue.

2008. Mr. *Angerstein.*] How do you account for your lighters being better protected than those of other people?—My men take care of their master's craft; they keep them under weigh much better than some of the others do.

2009. The *Lord Mayor.*] In fact you make them do their duty, you pay them well?—There are not the lightermen now there were formerly.

2010. Mr. *Angerstein.*] Have any accidents occurred to your steam-vessels; have you had any charges brought against you for navigating the Pool too quick?—No. The hue and cry against steam-boats has caused all the mischief. We had the misfortune with the Columbine to run an oyster-boat down in Bugsby's Hole; it originated from this hue and cry of the police magistrates, and watermen and lightermen crying them completely down; and every man considers that a steam-boat must go out of the way of everything, let the vessel be standing on her course which way she will; although a sailing vessel was standing directly athwart a steam-boat, she makes no sort of alteration in her course, until she comes in such a way that she cannot relieve herself. A practical man in charge of a steam-boat does not expect that a vessel is going to sail right athwart him. It has turned out ever since a man of the name of Clark, who belonged to Greenwich, and the captain of the Royal Adelaide, were tried at the Old Bailey, and the judge very properly discharged them, there has been no sort of accident touching loss of life since that time.

2011. *Chairman.*] Do you not think it is right that a steam-boat, which has the power of altering its course at will, should always, rather than get into an accident, go a little out of its way to avoid any vessel that may be standing wrongfully across its course?—I am convinced that they ought to do everything to prevent any sort of accident, but a vessel going down at night and another vessel sailing up in the night, the vessel coming up can see the lights attached to the masts of the steam-boat, but the steam-boat can see nothing of her. They can see the steam-boat when the master of the steam-boat can see nothing of the vessel coming up; they always make a calculation that they are to keep their course, and a steam-boat must go any way out of her course to make way for them.

2012. The *Lord Mayor.*] Then you are of opinion that no vessels ought to move at night without a light?—That is my conviction.

2013. Mr. *Angerstein.*] Is there any regulation on the river as to the side steam-boats should pass each other?—There is not.

2014. Should there be?—I do not believe it practicable.

2015. Would benefit arise by preventing one boat passing another?—It is very seldom they can, and consequently it is very rarely they do.

2016. Captain *Alsager.*] If the helmsman was carried forward would it not be

be beneficial?—I think not; the captain is better able to see the danger; I do not think you could have it quickly done forward; where is the rope to lead? Mr. T. Brocklebank. 23 June 1836.

2017. Along the water-ways?—It could not be led to do that execution as when a man is close by the tiller.

2018. Mr. *Angerstein.*] Has any plan presented itself to your mind for regulating the speed of steam-vessels?—No; any impediment in the speed would do considerable more mischief than what they do now. It is the speed that makes them handy and makes them feel the helm, for if there is a vessel 170 feet long, and she has no sort of speed, she becomes like a log on the water, and will do more damage than when they use full speed.

2019. Captain *Alsager.*] What do you call steerageway?—Not what people say, 10 or 12 miles an hour; five or six knots an hour through the water.

2020. Then you consider five or six knots is quite sufficient to exercise a command over any steam-boat?—That is, through the water; not going down over the ground with the tide. I do not believe they go 10 or 12 miles in the Pool, as stated.

2021. Mr. *Angerstein.*] Could any improved construction take place in the watermen's boats?—The watermen's boats are too small.

2022. Have you seen a model of any you could recommend?—I have not.

2023. Mr. *Crawford.*] Do you know the Greenwich wherries?—Yes.

2024. Are they better boats?—Yes.

2025. Is that as safe a boat as any you know in the river?—Yes, and capable of carrying passengers.

2026. Is one man able to manage that boat on ordinary occasions?—Yes.

2027. Captain *Alsager.*] Against the wind?—Yes.

Mr. *William Scott,* called in; and Examined.

2028. The *Lord Mayor.*] WHERE do you reside?—Rotherhithe. Mr. *William Scott.*

2029. What are you?—I have served my time to the water as a lighterman.

2030. Are you a lighterman and waterman now?—Yes.

2031. Have you been in the habit of conducting vessels between Gravesend and London, and the several outports?—Yes, many years.

2032. How many years?—Forty-six years.

2033. Conducting vessels as pilot?—Yes.

2034. Mr. *Crawford.*] Do you take charge of them as pilot?—Yes.

2035. Are you a licensed pilot?—No; I only take them in and out of the docks, and up and down the river.

2036. The *Lord Mayor.*] You have been in the habit of bringing large ships up the river?—As large ships as any man.

2037. What is the largest ship you ever recollect bringing up the Pool?—2,370 tons.

2038. Where did she come from?—From Plymouth.

2039. What was she?—A Dutch 84.

2040. What did you bring her up for?—To break up.

2041. What was the draft water?—19 ½ feet.

2042. Have you been in the habit of bringing up East Indiamen for the same purpose?—Yes; and Mr. Cristall, and Mr. Sedger, and Mr. Beeston never had a ship to break up of that size but what I brought up.

2043. Have you taken charge of any loaded merchant ships?—Yes.

2044. What burden?—From 400 to 500 and 600 tons. I used to do business for Green & Nicholls.

2045. Do I understand you to say you brought these vessels as prizes, not as London merchantmen?—Those I brought as prizes were 13 sail of Danish West Indiamen brought in at one time.

2046. When was that?—I cannot recollect.

2047. Have you brought any London merchantmen up within the last few years?—No, not within seven or eight years; I have pretty well done with it now; I have had a pretty good spell.

2048. Then you have no experience in bringing London merchantmen within seven or eight years to the London docks?—Yes, as good experience as any man on the river.

Mr. *William Scott.*

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2049. But you have not been in charge of a vessel these four or five years?—No, not merchantmen to the St. Katherine's docks. I have not followed it lately; but still my friends respect me so much that they certainly will have me bring those large ships up for them.

2050. Have you observed any obstruction in the Pool?—There is an obstruction in the Pool, when we have the wind away from the east for a fortnight or three weeks; then it compels the vessels to go the westward, and the ships arrive all together, and that does make a confusion in the Pool.

2051. Have you found the harbour-masters attentive to their duties?—They always gave me assistance when I required it. If I have been coming up with a heavy ship, when I have seen them and have said, "Will you ask such a ship to sheer in or sheer out; I will thank you;" when I came up I have found them giving every assistance I wished.

2052. You have known the river 46 years; have you observed any alteration in the depth of the river?—Yes.

2053. Captain *Alsager.*] In the stream?—Yes; some years ago the East India Company thought fit to get a grant to put three buoys down in galleons for the purpose of the East India ships, when they used to go down and catch the wind away from the northward, and these buoys were for the purpose of ships to moor to. When there were no ships of that description there, colliers used to make fast; at last they thought fit to have a man appointed to look after them; and if a collier made fast to the buoys he made them cast off. In the course of a few years that grew up in that manner, that a light Indiaman could not lie there. What was the consequence? They had the buoys taken up again, and now there is water for four or five heavy ships at their own anchors.

2054. By that you mean to say the river is deepened?—Since they took the buoys away it is; the ships deepen the river. Look at Woolwich; since they took the moorings away it will cost many thousands to take the mud away from there, since the vessels were prohibited from mooring. Look at Deptford again; there was the Captain Cook, the other day, a vessel which draws only about 15 feet water, and she sued about a foot and a half. Go to the Red-house, where we have had 50 sail of transports, ships of large draft of water; there was always good water there, and at the King's moorings; but now, since there have been no ships allowed to lay there, a collier drawing 14 feet water grounds and sues there; and there are the King's moorings lying dormant doing nothing.

2055. The *Lord Mayor.*] You are of opinion then that if the colliers were removed out of the Pool the river would silt up?—You may depend on it; it would entirely.

2056. Captain *Alsager.*] Has not the use of steam rendered it much easier to bring a heavy ship up the river?—It certainly assists them very much; ships that were two or three tides coming up, come up now in a few hours.

Mr. *James Penniall,* called in; and Examined.

Mr. *James Penniall.*

2057. The *Lord Mayor.*] WHERE do you reside?—At Greenwich.

2058. Are you a pilot?—I am a conductor of coasting vessels, not a licensed pilot by the Trinity-house.

2059. How long have you been pilot to the coasting trade?—Something more than 30 years.

2060. What is the general size of the vessels that you pilot up and down the river?—From 300 and 400 tons down to 130. I generally go with one company's vessels, the Leith and Berwick company's smacks.

2061. Mr. *Crawford.*] Have they any smacks of the burthen of 300 or 400 tons?—One of our vessels runs about 200 tons.

2062. The *Lord Mayor.*] What is the burthen of those Leith and Berwick smacks?—From 180 to 209 tons.

2063. Mr. *Fox Maule.*] Drawing how much water?—About 11 or 12 feet.

2064. Captain *Alsager.*] By the stern?—Yes.

2065. The *Lord Mayor.*] From what part of the river do you generally pilot these vessels?—Sometimes I go down the river with the downward-bound ones and meet with the upward-bound ones; but my proper place is to meet the upward-bound

upward-bound vessels at Bugsby's-hole; that is my agreement with the company. Mr. *James Penniall.*

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2066. Are you acquainted with the navigation of the Pools?—Yes.

2067. What has been their state the last five or six years?—It has been considerably better than it was before.

2068. Mr. *Fox Maule.*] Within the last two months?—Considerably better than that.

2069. The *Lord Mayor.*] Would a collier dock be desirable to be established on the river?—I do not know. I have been in the company of the masters of many colliers, and they do not approve of it. I should not approve of it as a consumer; I consider I should have my coals considerably dearer; they can never use that dispatch in dock as they do now.

2070. Why?—Because they could not get them in and out quick enough.

2071. How many vessels might you have piloted up and down the river in 1834?—In 1834, I was up and down with 232 vessels; and in 1835, 235; I have stated 236, but I corrected myself.

2072. Mr. *Angerstein.*] Why did you correct yourself with regard to that number; have any questions been put to you before you came in to this Committee?—I was at Guildhall some time ago.

2073. Mr. *Fox Maule.*] It was at Guildhall you stated you had been with 236?—Yes.

2074. The *Lord Mayor.*] Was it before the navigation committee you were examined?—Yes.

2075. Did those vessels sustain any damage?—I do not know that we have done any damage, only so much as not worth naming, about 8 *d.*

2076. You go up and down the river several times in the week?—Yes.

2077. Do you generally see the harbour-masters at their duty?—I do not know that I ever was up and down without seeing them somewhere or other.

2078. Mr. *Angerstein.*] Where do you expect to see them?—At the mouth of the Pool, where vessels are coming up, and they order them to stop short. There is a flag hoisted at Greenwich; still they come higher up. Then the harbour-master in Limehouse-reach tells them, "You cannot go higher;" then probably many ships stop at Limehouse-hole.

2079. Do the masters of ships obey their directions?—Generally.

2080. Not always?—I have known them not put in practice the orders of the harbour-master; I have known them to say, "You cannot order me out of the Pool without 12 hours' notice." Probably they (the harbour-masters) put their written orders aboard; and before that order has effect is all the ship requires; he can lay as long as he wants there, provided it does not exceed the 12 hours.

2081. By lying there 12 hours, probably he interrupts the navigation of the river?—He would not be ordered away by the harbour-master if it was not an obstruction.

2082. When there is a space for a smack to turn up and down the river, there is space for other vessels?—I should say so. I measure by one of our vessels; they are very particular vessels; we beat them up to windward, and we have had no damage. I beat one up yesterday. I have known complaints of the Pool, and people saying they could not get up, and have had a steam-boat to tow a vessel of 300 or 350 tons. But I have seen a brig turning up; I saw one yesterday, and am confident she did not draw less than 15 feet water; she made several tacks in the Pool.

2083. The *Lord Mayor.*] What do you consider the principal cause of the obstruction in the Pool?—There are many causes that frequently happen together. The number of ships and a number of craft all congregate together, sometimes in slack tides, so that they cannot separate from one another. Vessels coming down together, sometimes just the first of the tide, as vessels begin to push into the Pool, and probably a ship, or two or three, will be moving down, towed down by steam; as they are coming down against the tide, and the vessels are coming up windward, of course it causes an obstruction; sometimes it is a good while before they can clear one another; I have been myself detained with a vessel an hour or an hour and a half by the ships getting together.

2084. Generally the system adopted by towing vessels by steam is to put a tug on each side?—Yes.

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2085. Not to warp them up?—No; I have seen a large steam-vessel on each side; they are very wide with their paddle-boxes; not these little tugs, but large ones.

2086. Have you ever seen a laden Indiaman of 800 tons towed up by a steam-boat of the Medway or Pearl class?—No; there are others, between the Rapid and the Brocklebank, and several that are between that size, that towed the Indiamen of 700 tons.

2087. Mr. *Angerstein.*] What space do they occupy when they have those large steam-boats on each side?—I cannot say exactly; I should think more than 100 feet, perhaps 110.

2088. Captain *Alsager.*] Is there any objection to moor colliers, so as you keep a channel clear in the middle of the river, to lay down stone moorings, so that the tier vessels should take those moorings, and the others go inside of them?—There must be several of them.

2089. Supposing there are a sufficient number, do you see any objection?—I should not; provided there are only four to each tier, they would never be able to boom the ships.

2090. Supposing you leave 200 feet between the tiers, then there would be room for a ship to haul out?—I should think that might be done with a great deal of facility.

2091. They would prevent a ship's swagging more than the common moorings?—I should say it would be a very good thing.

2092. Do you think it would be advantageous, lower down the river, that there should be specified places and moorings laid down, and that colliers should stop at certain points?—There are famous moorings now, if they were allowed to be used; at Deptford they used to be in use in war time, and now they are not used at all.

2093. Then they should be moored under some regulations, to keep them together?—The chains are still there, and if they are allowed to use those moorings, to heave up there, and make their bridles fast to the moorings and clap a buoy there, it would take all the superfluous vessels that come, moor to head and stern.

Mr. *John Charles Doust*, called in; and Examined.

Mr. *John C. Doust.*

2094. The *Lord Mayor.*] WHAT are you?—The master of a steam-boat.

2095. Where does she ply?—Between Greenwich and London.

2096. Are you acquainted with the Pools?—Perfectly well.

2097. For what space of time?—I have been about 17 years now upon the water.

2098. You frequently go through the Pool?—From 10 to 12 times a day generally, eight months out of the twelve.

2099. Do you meet with many obstructions?—Not many.

2100. What is the principal cause of the obstructions?—The principal cause is from the number of those large ships that are allowed so far up the river to the St. Katherine's docks. I have frequently seen it the case, when they have been going up with a steam-boat on each side, that they are in the habit of putting other vessels by, and that causes an obstruction.

2101. If they were towed with a steam-boat ahead, instead of on each side, the obstruction would not be so much?—Not so much; for there are two steam-boats, one on each side of the vessel; it takes a great space of room.

2102. Is it frequently the case that those large vessels are towed up the river against the tide?—Not up against it; down against it frequently.

2103. Are those vessels laden?—Generally; many of them are American liners, as they are termed.

2104. Captain *Alsager.*] Do you consider it more advantageous to lash alongside a vessel in towing her up?—No.

2105. Suppose you wished to back astern in the Pool?—That cannot be done if the vessel is towing ahead of her.

2106. If you wanted to turn round in a narrow space, would it not be more advantageous then for a steam boat to be alongside?—Yes, decidedly it would.

2107. The *Lord Mayor.*] Have there been any complaints of the difficulty of the navigation of the Pool lately?—I have not heard of many.

2108. Those

Mr. *John C. Doust.*

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2108. Those that you have heard of, are they well founded?—No.

2109. Do you think there is every facility to keep the Pool as clear as possibly it can be, except when the weather interrupts it?—Since the regulations the harbour-masters have adopted of detaining the colliers at Greenwich, it is much better.

2110. Mr. *Angerstein.*] To your knowledge, has any alteration taken place within a short period as to the regulations of the Pool?—I believe there has been a little within the last few months.

2111. What do you call a little?—They have kept a wider space than they formerly did.

2112. In regard to the accidents that have occurred on the river, have they occurred principally from the large steam-boats or the small ones?—From the large ones generally.

2113. You consider the small steam-boats more manageable?—Decidedly so.

Mr. *John Taylor,* called in; and Examined.

Mr. *John Taylor.*

2114. The *Lord Mayor.*] ARE you a pilot?—A pilot in the Pool.

2115. A licensed pilot?—No; a Greenwich pilot.

2116. Do you recollect any accident occurring to the ship called the Medora?—I recollect it very well.

2117. Were you persent?—No, I was not; I came down after she had sued a few inches.

2118. Who had charge of her?—A man of the name of Smith.

2119. Was he a licensed pilot?—Yes.

2120. Did you have any conversation with him?—All the conversation I had with him was as I passed him, to give him a little advice. They were trying to tow the ship off with two steam-boats stern foremost; I told him, as the ship had gone on, he had better try the other way in order to draw her off, to draw her back the same way she went on.

2121. Was she towed down by two steam-boats ahead?—Yes.

2122. Not lashed alongside?—Not alongside.

2123. Captain *Alsager.*] Did the pilot in charge of the Medora lay any blame on the state of the river, or did he attempt to excuse his having got her ashore?—I have heard, but I never had it from him, that there was some craft in his way, and he was obliged to alter his helm in order to clear this craft.

2124. The *Lord Mayor.*] What was the state of the weather that day?—Blowing very hard from the westward, so hard that if I had had charge of the ship I would not have moved her. A vessel going a long voyage being coppered as they generally are, are likely to have their copper hurt by getting aground, which is very injurious to a vessel going a long voyage.

2125. Has the Pool been obstructed latterly in any particular way the last few years?—The Pool has been better of late years than it used to be; considerably better, in consequence of the colliers being stopped below; it has cleared the Pool.

2126. Mr. *Crawford.*] Is it better within these two months?—It has been better within these two months than I ever saw it in my life; taking it altogether, rough and smooth, it is better than I ever knew it to be, owing to the large vessels usually in the coal trade having gone into the foreign trade.

2127. Captain *Alsager.*] Has there been any alteration, or shifting of shoals or depth of water in the river?—Whenever they take away the tiers, of course the ground will grow up. For instance, there is off the Red-house, where they might lie a vast number of colliers, in consequence of the tiers not lying there as they used to do, the ground grows up; and where there used to be 16 feet water there is not now above 12 or 13.

2128. Mr. *Angerstein.*] Is that a settlement of mud generally, or gravel?—Both.

2129. Captain *Alsager.*] Rather mud, you would say?—I should think both, and coals and different things that roll out of the Pool. I have often seen people dredging for coals where they have run out of the Pool into Limehouse-reach; I have seen a score of boats at a time.

2130. Peter-boats?—Yes.

2131. How does that coal work out of the river: does it arise from unloading in the river, or any other cause?—From unloading in the river.

Mr. *John Taylor.*

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2132. Mr. *Crawford.*] What do you suppose each boat to have had on that occasion?—Five or six cwt.

2133. The *Lord Mayor.*] It is a notorious fact that opposite to the Red-house, the Deptford yard, the river is silting up very fast?—I am convinced of it. I have known ships of 17 feet water moor there; in fact there used to be West Indiamen there in my time.

2134. And now a vessel drawing 16 feet water could not lie there?—No, she would ground; and in consequence of grounding she would roll over her anchor perhaps, and do herself a serious injury. There are mooring-chains now; and if ships were moored head and stern, as they could be, if they grounded a little it would not matter.

Lunæ, 27° die Junii, 1836.

MEMBERS PRESENT.

Mr. Angerstein.	Captain Alsager.
Mr. G. F. Young.	The Lord Mayor.
Mr. William Crawford.	

Mr. ANGERSTEIN, IN THE CHAIR.

Mr. *John Blenkarn,* called in; and further Examined.

Mr. *J. Blenkarn.*

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2135. The *Lord Mayor.*] YOU were examined on the 20th of last month?—Yes.

2136. What is your practical knowledge of the river?—I have been at the water-side ever since I was at the age of 13. I cannot say that latterly I have had a great deal of experience, but from the age of 15 up to 30 I think I had a good deal of experience; for I could row a wherry or a skiff, or go in a barge or in the coal-ships, as well as any waterman living; latterly, since I have been so much engaged, I have sunk into a state of supineness in that respect.

2137. What has been your practical knowledge of the river within the last five or seven years?—I can only say, I have been at the water-side since the age of 13 years; for nine years I have been at the Three Cranes wharf, Southwark-bridge, with my relations; I was at the Custom-house quay after that; and from that time I have been where I am now, and I have never been from the water-side during the whole of my life.

2138. Your experience, then, is derived from your business as a wharfinger and being employed by the river-side?—Yes.

2139. How often have you been on the river during the last year, or this?—I have been very often going down in the Gravesend boats.

2140. How frequently in a year?—I cannot possibly say.

2141. Once or twice?—Yes.

2142. For the purpose of pleasure only?—Only that.

2143. Can you give the Committee any idea of the number of times?—Not at all, not the slightest.

2144. Six times?—Yes.

2145. In the summer months?—Yes, and sometimes in the winter; since I have been engaged with various steam-boats that now frequent our wharf, sometimes I have been compelled to go at a time when I did not at all relish it.

2146. The fact is, you hardly ever see the Pool?—Yes, I do.

2147. How often in the course of a year?—It is enough for me to answer the question in that way; it is impossible for any pilot or captain to say more.

2148. You are asked, of your own knowledge, whether you hardly ever see the Pool?—Certainly; but I will admit, at once, my information is frequently a great deal more from hearsay.

2149. Are the Committee to understand that the evidence you gave to the Committee last year was founded more on hearsay than on your own knowledge and information?—No, I do not mean to say that.

2150. It

2150. It is from your own knowledge?—Yes.

2151. You cannot tell me how many times you passed through the Pool last year?—No.

2152. Have you been there this year?—Yes.

2153. When were you there last?—About a month ago I went down to Gravesend.

2154. Did you go there on business or on pleasure?—On business.

2155. Did you go into the Pool?—I went through the Pool to Gravesend.

2156. How many complaints have you made to the harbour-masters as a wharfinger?—That is impossible for me to say; quite impossible.

2157. Have you made many?—Yes; not only myself, but our managers at wharf have done so, perhaps more than myself.

2858. Have they been written communications?—Some of them, I believe; not from me, but from the firm, in the name of our managers; in our names and our managers'.

2159. What has been the nature of those complaints?—Why, that a variety of obstructions arise.

2160. Have you copies of those communications, and could you produce them?—I dare say I could; but some of them, of course, when our people do a thing off-hand, when some vessels interfere, and we cannot get in or out, it is done out of hand, in a way that I cannot refer to now.

2161. *Chairman.*] Has it been done verbally or by writing?—Verbally, more.

2162. To what authority did you complain?—The harbour-masters row up and down the river, and our people say, so-and-so is the case, and so-and-so is the case; sometimes we cannot get a vessel into our wharf at all.

2163. The *Lord Mayor.*] From what cause?—Because other people hinder us, and come and swing alongside of our premises, and we cannot get in.

2164. Waiting for a berth?—No.

2165. In what way then?—At Botolph's wharf and Nicholson's wharf, between us and Billingsgate, those vessels swing up on the flood-tide, and we cannot, with all the remonstrance imaginable, get them away.

2166. Are they waiting for cargoes?—No; they merely come in with a view to get to the wharf, to get in the cargo, and they overhang us until it is convenient to get in at high water.

2167. Does that sometimes occur when your vessels are off the wharf?—Sometimes; occasionally the steamers may perhaps be hindered a little; but at flood-tide the vessels swing up in front of our premises alongside.

2168. They come up for the purpose of taking in cargo at Botolph wharf, or some other wharf adjoining yours?—Some of them may; some of them are steamers that come to take passengers.

2169. Do those steamers take their passengers from those wharfs precisely as other steam-boat companies ply at your wharf?—Yes; but we do not interfere with their convenience; when our steam-boats have taken in the passengers, and we want to get out, we cannot if those boats in flood-tide come in front of us, as we had an instance last week.

2170. My question was this; do not those vessels come up for the purpose of taking a cargo?—Yes; but they have no right to lay in front of our wharf.

2171. Or passengers?—Yes.

2172. To Botolph wharf?—Yes, or Somer's quay.

2173. To take in passengers?—I suppose so.

2174. When they are laden they go away, do they not?—Yes; but they may lay two or three hours to our inconvenience; that is what we complain of.

2175. Are the Committee to understand that the proprietors of other wharfs have never made any complaint that your vessels ply and injure them in the way you have spoken of other vessels injuring you?—No, I am not aware of any such complaint; we are the last that would indulge in any such accommodation; we have accommodation ourselves, and do not want to annoy anybody.

2176. You have said your complaints were made a thousand to one more often verbally than in writing; how many complaints do you think you may have made last year to the harbour-master?—I cannot tell.

2177. Were they so very numerous that you cannot tell?—No; for the last week I have not been on my premises; I only last night got the notice to attend here

Mr. *J. Bienkarn.*

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here to-day. I was not on my premises but once since last Friday week, and therefore it is impossible for me to know.

2178. Then you, having been examined on the 20th of May last, and having been examined at considerable length, will you have the goodness to state to the Committee what portions of that evidence were given from your personal knowledge and what from hearsay?—I think I may state safely that every portion of that was from my personal knowledge.

2179. We are distinctly to understand that applies to every part of it?—I mean to say my observations were general; and I think they alluded more immediately to the neighbourhood of London-bridge and the state of the Pool, excepting from the general complaint made in the Pool.

2180. You were not speaking of your individual loss by any misconduct on the part of the harbour-masters, but was the evidence you then gave from your personal knowledge?—The evidence I then gave was from my own experience, exactly according with the tenor of my statement on that occasion.

2181. Are the Committee to understand that the complaints have been so numerous to the harbour-masters that you cannot detail them?—No, I cannot possibly do that; I should be sorry to state that which I cannot prove.

2182. How many complaints may you have made to the navigation committee?—That I am not prepared to state; for some of them are in writing and some are not. They were all mixed up; our general complaint was so mixed up with the London-bridge committee, that we were referred from one to another, and could get no relief.

2183. I will read to you; you have a copy of your evidence; turn to question 208, "We have complained to the harbour-masters and to the navigation committee." When did you complain to the navigation committee?—Oh dear me, you puzzle me now.

2184. Did you ever make a complaint in writing?—Yes.

2185. Did you memorialize that committee?—We did, to the best of my judgment.

2186. On what subject?—I really cannot tell you; it is some time ago.

2187. On what subject was it?—You take me quite by surprise; I really do not know whether it was on the subject of the confusion that was going on in pulling down the old London-bridge, or the intrusions we have experienced for many years from the adjoining premises; I do not recollect which it was.

2188. *Chairman.*] Do you not keep copies of your letters?—Yes, generally speaking, we do.

2189. The *Lord Mayor.*] You are aware, as a member of the corporation, that all complaints laid before every committee of that corporation generally arise from written communications?—Yes.

2190. Consequently if you made it, it would still be in being?—Yes.

2191. You have been heard before the navigation committee on the subject of your complaints?—I think if the honourable Committee will allow me time, as it is so mixed up between the London-bridge committee and the navigation committee, I have no objection whatever, I should be most happy to bow to any dictation of this Committee; but I am not prepared with anything of the sort; but I am satisfied I have got ample means of showing the anxiety which I felt, the applications which I made, and the rebuffs which I met; they are in writing; not the rebuffs, but I can prove them.

2192. Have the goodness to state to the Committee what were the nature of the complaints you made to the navigation committee?—With regard to the navigation committee and the London-bridge committee, it was more immediately connected with London-bridge itself; I cannot possibly state from recollection what it was, as it is some time ago.

2193. Did you ever make a written complaint, or did your firm ever make one, to the port of London and the navigation committee of any obstructions in the river?—I think there is no question about it; but we were always handed back to the London-bridge committee. Under the Act of Parliament for pulling down and re-building London-bridge, that was more immediately our object; we found that we were filling up, that where we had 14 feet of water, we were getting dryer and dryer, till at last we were quite dry. Our applications were confined in a great degree to the business of London-bridge.

2194. On your applications to the navigation committee they referred you to the London-bridge committee, believing that any cause of complaint that you might

might have to make rested with the London-bridge committee to remove or redress?—Yes, as regards that particular spot.

2195. Now will you have the goodness to state whether you recollect at any time having made any complaint to the port of London or navigation committee of any obstructions in the river?—If the honourable Members of the Committee will do me the favour of allowing me another opportunity, I will furnish you with every document; a copy of every document that has been submitted to the one and the other.

2196. *Chairman.*] And the answers you received?—Why, as to the answers, it has generally been done in this way; you go in before the committee, as I have done now here, when they say, your application cannot be granted, or something of that kind; therefore it places us in a very awkward situation as to the answers.

2197. The *Lord Mayor.*] Are the Committee to understand you are unprepared to be examined on the evidence now in your hand?—I am quite satisfied and willing to take my oath now that what I have stated in my evidence is correct; but I am not prepared to give dates or the particulars of circumstances that have gone by for a long time.

2198. Are the Committee to understand that you are not prepared to state how many complaints you have made to the harbour-master, or to the navigation committee in the course of the last two years, as to the state of the river?—No, and I do not think I ever shall be; it has been principally in a verbal way; but as to the navigation committee, those two or three applications were in writing. I think I can show them; but as to the number of our applications by our servants and foreman, and persons connected with the business, it is impossible ever to render the Committee any satisfactory information.

2199. Are you not aware, as a member of the corporation of London, and from the knowledge you have obtained as such, that no committee can entertain any verbal proposition?—That I must leave entirely in the hands of the Committee.

2200. You have been a member of the corporation for many years, have you not?—No, not above four or five years.

2201. Have you not been on several committees of the corporation?—Yes.

2202. Did you ever hear any verbal complaint entertained before the committee?—No, certainly not; but when you have servants, when a committee has servants under their control, and when you know those servants are the persons who had the management, I would say, almost of that navigation committee, then it was useless our going to the navigation committee, after two or three trials; therefore our people used to say so-and-so is the case; of which I can bring no evidence.

2203. Are the Committee to understand you have made complaints, but you cannot say exactly when?—No, excepting those which are in writing; and I think I have been as particular as any man.

2204. How many steam-boats come alongside of your wharf in the course of the day?—They are accumulating every day; I gave evidence to that effect as far as it went, before, but they have been increasing since that.

2205. *Chairman.*] How long is it since you gave that evidence to which you allude?—On the 20th of May; we have been increasing, and I will tell you the reason; the Greenwich boats, instead of going once an hour, go every half hour. There is a very great increase in consequence of that. My evidence went to the effect that we had 5,369 steam-vessels in 1835, and we carried 789,203 passengers and a half. Then, independent of that, we have vessels in the green fruit trade, and the dried fruit trade.

2206. Will you turn to question 204 of your evidence; you stated there, the question was, "What do you attribute that to?" that is, the state of the Pool; the answer was, "To the immense increase of colliers, in consequence of a large consumption of coals principally: the tiers are so much filled up, that there is scarcely a passage in the Thames;" what part of the Thames do you allude to?—It is at and near the Globe-stairs; I had a memorandum of that; it is generally the worst point. But every time a steam-boat misses her time, there is an account given why she misses her time; the very navigation committee themselves will testify that.

2207. What part of the Thames does this evidence refer to?—It is Globe-stairs and its vicinity.

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2208. Are the Committee to understand that this is from your own observation? —Frequently.

2209. How frequently may you have seen 150?—All I know is, we can scarcely squeeze through, and this very navigation committee on two or three occasions could not get a small boat through.

2210. On what occasions?—Within the last two or three months they could not get their boats through.

2211. From what cause?—The tiers being so full.

2212. A gale of wind at the time?—Perhaps so; I cannot tell.

2213. Were there more colliers than were allowed by the bye-laws?—Yes, I dare say; I remember the navigation committee complained, Mr. Blackett among the rest.

2214. Are the Committee to understand that there is on an average only 150 feet kept throughout the river?—There has been a great stir made, which has certainly affected it; before that, there was not on an average more than 150 feet in the Pool.

2215. Prior to this great stir that you have spoken of, there was only 150 feet kept on the average?—Yes.

2216. State to the Committee in what part of the river these 150 feet only are kept?—Sometimes in one spot, sometimes in another; I cannot possibly answer that question.

2217. If you have given an opinion that there was sometimes only 50, sometimes 100, and at other times not 150 feet left, on an average, what do you mean by that?—I think the word speaks for itself, that the average of the navigation, if you take it from the Lower Pool up to London-bridge, the average would not exceed 150 feet; I cannot tell you at what part.

2218. If we take from a given point to a given point, as a man of business you would take the whole, would you not, and draw the average?—I do; I take from the Lower Pool to London-bridge.

2219. You mean on the average it is only 150 feet from London-bridge to Greenwich?—No, I do not mean to say the whole of the way; I mean that in some particular part of it it will not be above 150 feet.

2220. Is the average passage only 150 feet; is it in some places 200 and some only 50, but the average passage 150?—Yes, certainly; to take the whole distance it will not amount to more than 150 feet passage in the distance from London-bridge to the Lower Pool; in some places it will be 50, in some 100, some 150, some 200, and some 250.

2221. Do you know what the increase of the colliers has been within the last seven years in the port of London?—I have not made any sort of calculation; it is quite evident it has been increasing.

2222. A great deal of the obstruction of the river is occasioned by that increase, is it not?—I conceive so.

2223. Steam-boats occasion great obstruction in the river, do they not?—Yes, they do, but not more than other vessels.

2224. Are steam-boats occasionally ordered off from your wharf?—No.

2225. Has never such a thing as that taken place?—I am not aware of any one instance.

2226. They lay out in the stream occasionally, do they not?—They are obliged to do so. That was my misfortune with the navigation committee, I could not get them to make any accommodation for them.

2227. You applied to them for that purpose?—Yes.

2228. *Chairman.*] What accommodation did you seek?—I sought the accommodation of a tier near Billingsgate, where there were five or six promiscuous vessels in the Irish trade, and a variety of other trades, that had no communication or connexion with any one particular wharf; the goods were taken out in lighters, put in vessels from the lighters from different wharfs, and it was supposed that to avoid the conflict of steam-boats coming up from St. Katherine's, where some were really moored, it were better they should have moorings as close as possible to the premises, so that going up and coming down might be avoided. I went off with the navigation committee on various occasions, and several of them agreed it would be desirable to remove that tier near the Eel-boat tier, near the Custom-house, and to allow it to be near the Custom-house; similar accommodation had been granted down by the lower part of the Custom-house for the general steam navigation company; but after going off with the navigation committee on many occasions,

occasions, many of those gentlemen concurred with me that it was a desirable spot in which to place five or six steam-boats, in a situation where six or eight sailing vessels occupied it, and laid for several weeks together unconnected with any immediate premises. It would be very desirable, to prevent that confliction, that a tier of steam-boats should be there.

2229. The *Lord Mayor*.] You made that application to the navigation committee for the accommodation of your firm, or for the Star steam navigation company?—Not in the slightest degree, merely for a tier for steamers. I was written to by the very parties you have been speaking of; I was written to from Margate, from Gravesend, and from all these parties to apply. I suppose they looked on me as a corporation man to apply for accommodation.

2230. The Star steam navigation company ply at your wharf?—Yes, and the Diamond.

2231. You applied for the exclusive privilege, did you not?—Certainly not.

2232. Do you recollect what reply you obtained?—Yes, perfectly well.

2233. Is that a true copy of it [*a letter handed to the Witness*]?—Yes. [*The Witness read the letter.*]—That is the argument they made use of at the time in my presence.

2234. Then it appears from that document an application was made on the part of the Star steam navigation company for the exclusive privilege to have these moorings?—I will show you a copy of that document; I will show you that no such exclusive application was made. I am aware the river Thames is a highway, and we have as much right to moor along one side as another. I should never have made such an application.

2235. Will you turn to question 209, in your own evidence, where you state "The parties do attend to the complaint; but the harbour-masters state, that in consequence of the number of coal-vessels to be accommodated, together with the steam-boats and other vessels coming up the river, it is impossible to find accommodation for the whole; and, therefore, there has been a great deal of a lenient sort of consideration until the thing has at last got to such a pitch they cannot go on any longer." What do you mean by saying "they cannot go on any longer"?—Because there is such an increase of business on the Thames.

2236. That is not attributable to the harbour-masters?—No; but I think the harbour-masters have got more duty to perform than they can; that is my impression; I think they cannot do it.

2237. Are the colliers below admitted into the Pool before the colliers in the Pool are discharged?—I am given to understand so; I do not go on board of them to examine them.

2238. Then in your answer to question 210 you state that the harbour-masters "admit too many colliers into the Pool at one and the same time; and, consequently, we have very large tiers of colliers doing nothing." Do you mean to say they do admit more colliers into the Pool?—Yes, I conceive they are beyond their control.

2239. They do not admit them willingly?—From the best information I possess, there are a great many more colliers than can possibly work.

2240. Do you know it of your own knowledge?—I do not, certainly; I do not profess to have gone on board of them. I attribute that to be the cause why the navigation is so interrupted.

2241. You say you attribute it to the harbour-masters, and then you state they admit too many colliers into the Pool at one and the same time; do you state that of your own knowledge?—Yes.

2242. State any one instance when they admitted more colliers than the bye-laws warranted?—I cannot state any particular instance; I take it on the principle of finding the contraction of the river.

2243. Do you know anything of the matter from your own personal knowledge?—What, about the colliers? I only know it from what is hearsay evidence.

2244. Do you know anything about it personally?—When I have been in the habit of going down the river, or coming up, I have seen decidedly too many colliers lying there.

2245. Mr. *Young*.] Do you know the relative number of colliers admitted into the Pool recently, as compared with any former period?—I think that latterly there has been a great deal of caution kept up as to admitting them beyond what were supposed to be working colliers; but the appointment of meters and other

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things have so completely altered the whole management that the corporation had the control of, that I can give no particular evidence on that subject.

2246. The *Lord Mayor.*] What class of persons are special jurymen?—I only know that I have been on special juries.

2247. Are not the principal part of the members of the common council special jurymen?—I do not know; I have been on several myself.

2248. Are not the principal part of the members of the common council special jurymen?—I know no more about it than this paper before me.

2249. Do you consider the special jurymen as competent to decide on all the matters brought before them?—That is a question it is difficult to answer, there are so many guides to it. I should say that a man of common sense, with the aid of the counsel, and of the judge who sums up (and where I have had the honour to attend, has been the Common Pleas, before Lord Chief Justice Tindal,) I must be weak, indeed, if I could not pretty well determine as to what the answer should be, "Guilty" or "Not guilty."

2250. Is not the navigation committee a competent tribunal, under the advice of practical officers?—No, there is a judge over this jury; but there is no judge over them.

2251. Explain who the judge is over them?—The chairman of the navigation committee.

2252. He is a member of the committee?—Yes, on the committee.

2253. Are the committee to understand that the chairman rules everything in the committee?—No; but he is a considerable guide.

2254. The chairman of this committee is generally chosen in the fourth year of his service on that committee, is he not?—No; they go off every fourth year whether they are chairmen or not chairmen.

2255. Is he not chosen in the fourth year of his services on that committee?—It depends entirely on circumstances; there is no one man has a right to be on that committee more than four years, chairman or not chairman.

2256. Is not the chairman generally chosen from those members who have been on the committee three years; is it not the case that he works the last year, the fourth year, as chairman of the committee?—No, not at all; there would be several that would expire at the same time; therefore out of so many on the committee, it is impossible they can all be chairmen. He is chosen at a period most convenient for themselves.

2257. Is not the chairman chosen from the committee?—Yes.

2258. And ceases the fourth year, when he enters on his fourth year of service?—I really do not exactly know, for I have never been on the committee; I should say he may be chosen in his second or his first year. I am not competent to answer the question in the way you have put it.

2259. You are member of the corporation of London?—Yes; but I was never on that committee.

2260. Have you been on any other?—Yes, the committee of sewers.

2261. No other?—I think almost all the others are definite; I was on five or six what you call special committees. Yes, I think I am on the Blackfriars-bridge committee.

2262. That is a special committee?—Yes.

2263. Whose members will finish when the work is done?—Yes, something like the London-bridge committee.

2264. You have stated, with the exception of yourself and two others, there are no persons in the corporation who know anything about the navigation of the river?—I do not think there is any practical man at the present moment.

2265. What do you think of Alderman Lucas?—If you put an alderman, there is no question.

2266. What do you think of Alderman Pirie?—He never had anything to do with navigation that I know of; he is a shipowner.

2267. One of the largest in the port of London?—Yes.

2268. Is he not connected with the Leith navigation company?—I do not know.

2269. Is he not one of the largest proprietors of steam-boats?—I do not know that.

2270. Do you infer, because he is a shipowner, he has no knowledge of the river?—No, I infer nothing of the sort. A mere alderman is not in the habit of attending to those practical things.

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2271. You have stated in your evidence before this Committee that, with the exception of yourself and two others, there is no one person in the corporation who has known anything of the navigation of the river; I now ask you whether such men as Alderman Lucas and Alderman Pirie, and Alderman Humphrey, Mr. Drinkell, Mr. Gost, Mr. Weston, and 50 others, have not a knowledge of the river, and are competent to judge of the state of the river?—I think Mr. Gost has no more knowledge than as a member of the common council; he is a highly honourable man and a respectable man; but I believe he is a man who does not pretend to anything of the sort. As to the aldermen, there may be some who I never took into my consideration, who may be very competent; but the question is, whether they attend to the practical part of it.

2272. You have stated in your evidence in chief, with the exception of yourself and two others, there is no one person in the corporation who knows anything of the navigation of the Thames; my question is simply this; whether such men as Alderman Lucas, Mr. Drinkell, Mr. Pirie, and others, have not?—I mentioned Mr. Drinkell; I mentioned merely commoners; I did not think of the aldermen; I never saw them attend to the practical part of it.

2273. Now as to Mr. Deputy Curling, with whom you contested the honour of a seat in the navigation committee; is he not a competent man to judge of the river?—I think he knows as little of it as any one there.

2274. A person who lately acted as a fish-factor, and connected with the shipping of the country, in your opinion, knows nothing at all of the river?—I do not think he has any pretensions to anything of the sort; I did not set myself up as an aspirant for anything of the sort at the time I mentioned Deputy Curling; I thought it was the committee I was best adapted for. I mentioned it quite innocently, without the least inclination as to vanity; for though I have been so many years at the water-side, I do not call myself a nautical man.

2275. You have been occupied in the business of a wharfinger?—Yes, and shipowner.

2276. And your avocations have taken you occasionally down the river on parties of pleasure?—And business together.

2277. Have you ever gone down the river to look at the state of the Pool?—Certainly; if you ask me——

2278. Did you ever go down the river purposely to look at the state of the river?—Never, never.

2279. All the complaints you have made of the navigation of the river, or the majority of them, are from hearsay?—No, I do not admit that fact. I mean to say some of them are from my own experience, but certainly materially more from hearsay from persons frequenting our premises, who are not few in number.

2280. You have stated in your evidence particularly, with reference to a person of the name of Peacock being on that committee, that he was a baker, in Bishopsgate-street; do you not know that Mr. Peacock is an influential man in the corporation, a sound, practical man, and that he has the credit of being a clever man in the corporation of London?—I always looked on Mr. Peacock as a highly respectable and clever man; but still, in my opinion, I did not think him acquainted with the navigation of the river.

2281. Are you aware that Mr. Peacock is director of the Eagle Life Assurance?—I believe him to be a highly respectable man, and so far as a corporator I have always felt great pleasure in associating with him.

2282. You have undertaken to speak of him, simply believing that, following the trade of a baker, he was an incompetent person to be on the navigation committee?—I did think that certainly, at the time; the questions were put to me, I did not volunteer them. I was asked two questions; one was, "Who was the present chairman?" I did not know his profession, or that Mr. Peacock was a baker in Bishopsgate-street; I answered the dry question. If you would ask me of his being a man of consideration and a respectable man, I would say I value him as much as any in the corporation.

2283. Your answer is, that you spoke of him, believing at that time he had no occupation but that of a baker?—I did not know of any other; and if any person had asked me of his being a director or a shipowner, I should have said I did not know.

2284. Presuming that Mr. Peacock is a large proprietor of steam-boats, that he is an active manager and director of a steam-boat company, that he receives and charters some 80 or 90 vessels from Yorkshire and Scotland into the port of

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London, and that he was a shareholder in some ships, and had been ever since 1804; if you had been aware of these circumstances, it might have altered your judgment as to his competency to judge of the state of the river, and as to being a fit person to be chairman of the navigation committee?—My answers to all the questions of the Committee are "Yes" or "No." It would have weighed with me certainly; but I have been in the navigation barge with all parties, and with the harbour-masters and the water-bailiff, and so on, and from what I experienced, I must confess that at that time I considered they were all inexperienced men; but if I had been told that Mr. Peacock, whom I have highly respected for a long time, no man more so, that he had been connected with vessels, I should have looked on him at that moment as more likely to aid my cause than to oppose it, for I should try to convince him of the propriety of adopting the plan I laid down.

2285. You were anxious to get on it?—I was no more anxious than this; my anxiety was simply that I had had so many committees, I did not think I could benefit those committees so much as I could that on the navigation, and I did not want to have any other. I stated that to Mr. Curling; but I found that rotation going on, and that I was not likely to be acceptable.

2286. If you had known that Mr. Peacock had been engaged as I have stated, it would have made you alter your opinion of his competency to fill the office of chairman?—I should have gone to Mr. Peacock in a very different way from what I have been in the habit of doing; my application has been general.

2287. If you had been aware that Mr. Peacock had been engaged in commerce in the way spoken of, as an owner of vessels, as a manager and director of a steam navigation company, as well as being a large freighter of ships annually, you would have been disposed to have thought him a competent person to be on the navigation committee?—Two out of the three I was perfectly ignorant of; the third I knew. He has lately commenced an ownership, in junction with the commercial company from Nicholson's wharf.

2288. If you had possessed the knowledge that Mr. Peacock was engaged actively in commerce, in shipping, and had been so since the year 1804, you might have been induced to alter your opinion as to his competency to be a member of the navigation committee?—My answer would be, if I had not been in his company together with the navigation committee so many times, to say what I did say, and which I stated distinctly before the navigation committee, including the largest number that assembled, that I did not think them a competent body. I have had no experience of Mr. Peacock's judgment, no more than I had of any other man; I should have felt a small feeling otherwise, but there is not a word I said here, but what I said quite as much or more before the navigation committee, in the largest assembly they ever had, including aldermen and all the rest.

2289. Have the goodness to explain to the Committee the number of times you ever attended the navigation committee on business?—I cannot tell.

2290. Do you know the manner in which the navigation committee transact their business?—I think I do.

2291. Were you ever present when they did?—Yes, I have been in a boat with them.

2292. Describe the manner in which they do transact it?—From my experience, not being a member of it, I have always conceived that they have gone and looked at the thing; some petition has come before them, they have gone and surveyed, and have looked, and made observations at the time with practical officers, and then they came to a decision.

2293. *Chairman.*] The whole committee, or a detachment?—Commonly speaking, a deputation, a sub-committee. Then they make a report to the general committee of their view of the case, and when I have gone before them, I have gone before the general committee; and on this occasion, with regard to the mooring of steam-boats, I was very much staggered indeed when I found they came to the unanimous opinion to reject the application, though several expressed themselves in favour of it in the boats, when we went in the boats.

2294. They take their officers with them?—Yes.

2295. Do they take the harbour-masters with them?—Yes.

2296. And discuss the thing with closed doors?—I suppose so.

2297. If they had removed those vessels engaged in other trades from these moorings which were paid for by the public, where must these vessels have gone to

to discharge their cargoes?—One to one tier and another to another; there would have been no difficulty in it.

2298. Would not that have occasioned a greater increase in the tier than the bye-laws would have allowed?—It is better to provide for six vessels that are lying for one week, than to provide for the steamers that are moving every half hour, and that one tier would have done it; the sailing vessels would lie there the whole week, or perhaps more.

2299. Would not that have occasioned a greater increase in the tier than the bye-laws would have allowed?—No, because they would go to the tiers as there was a vacancy for a vessel.

2300. Do you know how often the navigation committee meet?—I have been told once a week.

2301. Can you state any one instance in which the navigation committee considered, or came to the conclusion after dinner?—That is not within my province.

2302. Then you will be very much astonished if I point out in your evidence where you have stated that?—I have stated according to the committees I have attended.

2303. Turn to question 223, the question put to you was this: "What business does this committee transact, if they are persons wholly ignorant of the subject they are called on to determine upon?" the answer is, "Petitions come before them for jetties, driving of piles, and a variety of cases, which, by the bye-laws of the navigation committee, no person has a right to do without their sanction; there is considerable business therefore before them, very considerable business sometimes, almost on every occasion; then of course, if it is a matter of much importance, such as carrying out a jetty at Deptford or Greenwich, or Gravesend, they go down in the navigation barge and take a view; they then go and dine, and then they come to a conclusion whether they will allow it to the whole extent, or part of the extent, or no extent at all;" did you state that?—I think there is a little mistake there; I think that generally speaking, according to the committees I have been on, not being a member of the navigation committee, I could not say as to that; I mean to say that that may be a little mistake, I think it is generally done before the dinner takes place.

2304. Do you not know now that the committee always transact their business before they go to dinner; you have been on views with the committee?—Never with that committee; I have been asked to go and dine with them.

2305. You have never been on a view with the navigation committee?—Never, except off the premises.

2306. You mean to state this statement was an error?—As to the conclusion of it: it accords with other committees I have been on, especially the sewers; we generally decided before we went to dinner; therefore I think that part may be fairly considered to be an error; I do not know whether I stated this or not, or whether in examining the evidence I overlooked it.

2307. Are not the officers employed by the committee fully capable to advise them on all matters, and responsible for the advice they give?—Certainly, responsible.

2308. Are they capable?—I do not know that.

2309. *Chairman.*] Is it your opinion that they are so, or are not?—I am of opinion, with my experience with them, that they are not quite capable.

2310. The *Lord Mayor.*] Do you know them?—Yes; I know the name of Mr. Fisher, as the head one.

2311. He is a harbour-master, is he not; are not the harbour-masters and the officers employed by the committee fully capable to advise them on all matters?—I think not entirely.

2312. Name who is incompetent?—I think the head harbour-master, Mr. Fisher; according to my judgment, they take his advice; there are four of them, I think, and he is the man whose advice they take; and I stated distinctly in the presence of the committee, that from my experience with him when I have gone off on views, I did not think him a competent man.

2313. Does that arise from his difference of opinion as to the object you had to promote?—No; when a man recommends me to have a mooring placed on the opposite side of the river, taking into calculation low-tide and high-tide, and the craft coming through London-bridge, that he should recommend that a mooring should be placed opposite premises where I knew that never would be granted, then my judgment of him certainly fails, for it is quite clear that the vessels coming

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to and fro every half an hour to my premises, must have run down the craft going through London-bridge.

2314. *Chairman.*] On what was your opinion founded, that that privilege would not be granted?—Because I would not allow of a tier, as far as my judgment would go, a tier of vessels to be moored off opposite my premises, to stop vessels coming in and out; those are situated like ours; if I went and intruded by having a lighter road opposite Chamberlain's or Fenning's wharf, by London-bridge, what would the people say, independently of the consequence.

2315. The *Lord Mayor.*] In question 225, you were asked whether, in your opinion, would that duty be more efficiently discharged by sending down persons who are competent to the work, instead of the committee coming down themselves; you answer, "A great deal; there is no question about that." Would not the effect of sending down persons, instead of the committee going to view them, be to leave the whole of it in the hands entirely of the officers?—My impression has been from the first, that one man, in a great degree, leads the whole committee; therefore it is in the breast of the harbour-master.

2316. Are the Committee to understand that it is your opinion, that be the work what it may, Captain Fisher, as the senior harbour-master, controls the committee entirely?—I think in a very great degree.

2317. Yet you are quite aware that it is the committee who proceed to inspect on all applications that are made to them, when there is any jetty or work to be done, as far as the river is concerned, that they proceed to view the proposed work?—Yes.

2318. Yet after having viewed the work proposed to be done, or the spot where the jetty is applied for, they either grant the application, or refuse it, on the opinion of Captain Fisher?—No, I do not mean to say that.

2319. What do you mean; that the whole of the navigation committee is under the control of one officer, Captain Fisher?—No, I was alluding more immediately to the state of the Pool; as to going down and viewing, I believe there are some highly honourable men on that committee; I do not believe they would be bought and sold at the will and caprice of the harbour-master; but still he has a very considerable influence. But with regard to all the reports, as regard the harbour-surveys, the general navigation, then I think that the committee are liable to be misled; but as to a jetty, it becomes a solemn application, and the committee have to exercise that for which they may be answerable elsewhere, therefore they will be a little cautious.

2320. Then they do not submit to the dictation of the harbour-master?—I think not.

2321. Then you mean to qualify that opinion that they are under the control of the harbour-master. At question 238, you said the harbour-masters are masters instead of being servants of the committee; your answer is, it amounts to that?—I am speaking then generally, not of any one particular duty, but generally.

2322. Are the Committee distinctly to understand that the navigation committee do not exercise their own judgment on the questions at all, but submit to the dictation of the harbour-masters?—I think from want of experience, not from any dishonourable view.

2323. Yet they do actually inspect the proposed works?—I presume so; they generally go as a deputation.

2324. Then as to question 237, what do you mean by the harbour-masters making so many excuses to this incompetent committee?—The labour is so great, and they have so much power, which no person can control, that I think the navigation committee not competent to contend with it.

2325. Do you mean that the harbour-masters are not under the control of the navigation committee?—Suppose I say I cannot get a vessel up the river because there are 300 or 400 sail instead of 200 sail, this man begins to make a statement to the navigation committee, and I am floundered.

2326. When did you ever make an application of that sort?—I never did; I am supposing that to be the fact; how has the navigation committee any power or any judgment? what takes place last night comes before the navigation committee a few weeks hence; what can they say to it? it gives them the opportunity of making any excuse they please.

2327. Is it possible for the harbour-masters to control the wind and the waves?—No, certainly not.

2328. You have stated these obstructions occur?—They do occur.

2329. Did

2329. Did you ever know the navigation obstructed with the direct permission of the harbour-masters?—Certainly not, I have no knowledge of that.

2330. These obstructions have been accidental?—I cannot tell that; there they are, it is enough to find it.

2331. Is it solely owing to the harbour-masters they take place?—I do not know; I think there are not enough; instead of four there ought to be six.

2332. We have now four harbour-masters, you have told the Committee they are not sufficient for the service; with the number of harbour-masters the corporation only possess at this time, do you think any obstructions are occasioned with their cognizance and with their permission?—No, I have no idea of making any wilful charge against them at all; I think there is such a want of controlling power, and such a want of knowledge when those men attend the committee once a week, it is not possible for them to rebut any charge brought against the harbour-masters for neglect of duty, or anything else. I think the system is bad.

2333. That is your opinion?—Yes, it is.

2334. Then as to question 208, what do you mean by the officers stepping beyond the common bounds of their duty?—I more immediately alluded to the solicitor, surveyor and remembrancer; we do not know when they are called in; I think that may be extra; I have no knowledge that they are called in, and I think it is not likely.

2335. Is this opinion founded on supposition only?—From the committees I have attended to, we have found it needful to have them in attendance. I think it is, perhaps, beyond their common duty, and they may be paid extra; I mean nothing personal.

2336. Can you state in your experience, as a corporator of London sitting on any committee, of any officer, remembrancer, or city officer, receiving extra pay?—I only imagine it; I think it is more likely that the officer of the works, such as Mr. Smirke, may be called in on such occasions. I am quite satisfied he would not give his attendance gratis.

2337. Is he an officer of the corporation?—He has been employed at the London-bridge approaches, and there is Mr. Montague, I think it not unlikely they have been extra paid.

2338. Do you know, or can you state any one instance of any officer of the city receiving extra pay?—I do not know; I do not wish to implicate men, to say they might not go there free of pay.

2339. How came you to say they are paid?—I did not say they are so; I believe in some instances, if they step beyond the common bounds of their duty, they are paid extra, but not generally so. I do not know how I can qualify that.

2340. Do you know any instances in which they have been paid?—I never had anything to do with the accounts, therefore I cannot tell.

2341. Do not the officers of the committee report in writing on all matters connected with the port of London?—I believe so.

2342. Are not the Trinity-house consulted on all matters of importance, and would not the introduction of practical men tend to create a bias in favour of the interest advocated by such practical men?—No, I think not.

2343. You have stated, in answer to the question 231, that the Lord Mayor appoints the harbour-masters, subject to the approval of the elder brethren of the Trinity-house?—I understood so.

2344. How came you to state that they are appointed by the Lord Mayor?—It is my belief.

2345. Are you not aware that they undergo an examination before the Trinity-house before they are appointed by the Lord Mayor?—It is very likely, for if the elder brethren of the Trinity-house did not approve of your appointment, they would refuse them.

2346. Go back to question 238; in what instance have the committee control over the harbour-masters?—That is my impression.

2347. Will you state in what instances?—From my own experience.

2348. In what instances?—By an association with them in business, and especially with regard to the question you put before on this subject; with regard to that business specially on several occasions, but that certainly was so. I had three or four visits with regard to the removal of that tier, in connexion with the navigation committee and the harbour-masters, and I saw the controlling power

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and influence these men had, especially Captain Fisher, over the deputation; it was only a deputation; but when I came before the committee generally, when Alderman Harmer and several others were there, the largest committee I ever met, when they told me they could not comply with my request, I said then it is necessary this should go into some other hands, for I am satisfied by the persons who went off with me and the committee they gave such proof to the harbour-masters. I am astonished when you tell me it is the unanimous feeling this day that that request should not be complied with.

2349. That refers solely to your application to the Yarmouth chain buoy?—It is a tier by the Eels'-boat buoy.

2350. Does it refer to the application as to the Yarmouth chain?—I do not know if it is that or the other. I am quite sure it is the same thing.

2351. Any man of common talent, having been on the navigation committee four years, is able to judge a little for himself, is he not?—I do not know.

2352. You are of opinion that four years' experience in the navigation committee, going up and down the river, viewing the banks of the Thames, the wharfs and other things connected with it, that he does not possess some knowledge and obtain some experience?—Of course he does possess some knowledge; but still I do say again and again, that when they have got men called harbour-masters, in whom they ought to place some reliance, there is no question they will give way in a way that men who are nautical men would not do.

2353. Then it is your opinion that they are quite right in paying some deference to the opinion of the harbour-masters, who are practical men?—Yes, some deference, I should certainly say; but I would not allow them to be masters of the committee.

2354. Would you consider a harbour-master able to give as good an opinion as the captain of a vessel trading in and out of the port of London?—I should think that the interests are different; the one has a direct interest, the other has not; the one has a plain straight-forward interest connected with navigation, the other is a man called on as a practical man to give an opinion on a certain subject. I should certainly say they are not to be compared in any way whatever.

2355. You mean the Committee to understand you prefer the opinion of a person merely coming to the port of London as the captain of a vessel before that of a harbour-master, whose daily duty it is to be on the Thames?—I should think if I found that man a deserving man, and one of ability; the one is a biassed man in favour of a certain rule and regulation laid down by the committee and by himself, from time to time; the other comes and voluntarily gives his opinion quite as a special man.

2356. You are of opinion that you would rather have the advice of an indifferent person, on any subject with reference to the navigation of the Thames, than one of the permanent officers or the harbour-masters?—I should take special care that this man knew something about the river Thames before I gave that opinion, certainly.

2357. In question 240 you were asked, "Have you had reason to complain of shoals and mud-banks in the river, causing obstructions to navigation?" Could the shoal you allude to there be removed with safety till the new bridge was built, and the old one removed?—Why, I presume that the Act of Parliament for building the new London-bridge never would have been granted, except under the special idea that the basis would be laid firm, and requiring no other support than the natural support of any brick-wall, or anything of that kind.

2358. Could the shoal you allude to have been with safety removed until the new bridge was built and the old one removed?—Why, there has been a shoal for the last 50 years.

2359. You speak of the shoal mentioned in question 240; on reading the answer you gave then, I ask you on that, whether that shoal could have been removed with safety until the new bridge was built, or the old one removed?—I think as regards what I have stated, there has been a hill about 200 yards in the middle of the river below London-bridge, that has been accumulating for a great many years; it is at the finish of the stream, where the current begins to slacken, there the accumulation has taken place; now as regards that, I consider it has as much connexion with new London-bridge as I have with the Monument at this moment.

2360. You state in answer to question 240, where you are asked, "Have you had

had reason to complain of shoals and mud-banks in the river, causing obstructions to the navigation?—Very much, and if anything can show the inefficiency of the navigation committee, I think this will unfold it; there has been a hill about 200 yards in the middle of the river, below London-bridge, that has been accumulating for a great many years." Now I ask you if the shoal you allude to could be removed until the bridge was built, and the old one removed?—Certainly; it was 200 yards from the old bridge.

2361–2. Captain *Alsager*.] Then why should Messrs. Jolliffe & Banks be so anxious to remove it?—They were not anxious to remove it. [*The Witness was requested to read the answer to himself before he gave that reply.*] I do not think in the part you allude to there is one word that I can alter, except that I would state this, that on application to the Trinity-house they stated there are a great many irregularities in the river; we know of this hill, we cannot work it without great labour, and that when once London-bridge is built and everything adjusted, and we find out the effect of the removal of the old bridge and the effect of the new one, then the river should be brought in an equality, and all the holes be filled up by the hills that may have been so created. That is the only alteration I can make in this evidence. We applied to them several times ourselves, and they declined doing it till they could make an equalization of the bed of the river, but it had no reference whatever to the stability of London-bridge.

2363. Was there no other shoal close to your own wharf?—Yes.

2364. Did you not look to that in this answer?—The removal of all the shoals we paid for ourselves; we had several close to our premises.

2365. That had been accumulating for nearly 50 years?—That we did not remove, ours were minor shoals.

2366. Could that shoal that had been accumulating for 50 years be removed with safety till the new bridge was built, or the old one removed?—It might have been removed at any time without reference to the new or the old bridge.

2367. If the opinion of Sir John Rennie and Mr. Telford, and the opinions of other eminent engineers were different from yours, you still remain of the same opinion?—Certainly. Good God, would a man with a boat and a lighter be found aground on an immense hill 200 yards from the bridge, and would they tell me that would affect London-bridge? which was of daily occurrence.

2368. Did not the port committee remove the large shoals, and has not the Trinity-house removed them to the extent of 400,000 tons?—I cannot tell what they have done; we have been at great expense, and we have not four feet water on the starlings of London-bridge, which were contracted for to be removed *in toto*.

2369. Do you mean to say that the river could be deepened there with safety to the bridge?—Why, good God, such a large bridge built at such an enormous sum, and the starlings not to be removed, and only to be four feet in the river, does not require an answer! I mean to say it does not require an answer.

2370. Do you mean to say the old London-bridge is not removed?—Certainly not.

2371. Describe to the Committee what remains of the old bridge?—I think I have said as much here in this printed evidence as I could say if I went over it again.

2372. Was not the rubbish you complain of thrown in by the direction of Sir John Rennie?—Some part was, but not a ten-thousandth part.

2373. Do you not know part was thrown in by his direction?—Yes, near the piers of the new bridge; it was after Mr. Jefferies complained that the bridge was settling; there was a small settlement.

2374. Have not the port committee been anxious to proceed with the work, and have they not only waited the sanction of Sir John Rennie to improve the navigation through the bridge?—Why, I think the best part is what we have been obliged to do ourselves; now they have stopped us.

2375. Have not the navigation committee been anxious to improve it, but do you not know they have stopped till they could obtain Sir John Rennie's sanction?—I have not the slightest knowledge of it.

2376. Is not the alteration of the depth of the water in front of your wharf occasioned in some measure by the alteration in the current of the river?—Long before that took place we were filling up in consequence of the stuff being thrown overboard, and of course nature will have its way, and we were satisfied we must put up with some inconvenience; but there was no necessity for thousands of

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tons to be thrown in. How can I tell what will be the effect of thousands of tons of stuff being thrown off and become dry? I cannot tell what it arises from, but I have my suspicions.

2377. Do you not suspect that it is occasioned by the alteration of the current of the river?—In a small degree, yes.

2378. Has not the value of your premises been enormously improved by the building of the new London-bridge?—No.

2379. Would you previously have carried on the trade you do now?—No.

2380. You have laid out a large sum of money and have been amply repaid?—Yes, but if Mr. Alderman Wood's bill passes, to stop the boats at Blackwall, what will become of us then? We are trying to make hay while the sun shines.

2381. You were in the habit, at your old wharf, of unloading fruit vessels and coasters very extensively; but since you have applied your wharf more particularly to steam navigation, have you not sent vessels away, as you could not give accommodation to land fruit?—No.

2382. You never sent any away?—No.

2383. You still unload as many?—Yes; some owners of steam-vessels have applied to us, which are in competition with ours, and those we have declined.

2384. Do you unload as many vessels as you did before you took up the steam navigation business?—Yes, just the same number; I do not think there is any variation.

2385. If any person has stated you have not accommodation for the same number of trading vessels, that is, fruit vessels, and coasters, as you had before, they have stated that which is incorrect?—I am not aware of anything of that kind being stated. Our coasting trade is not great.

2386. Have you the same accommodation for that now?—We have not the same, for we have taken in part of Fresh Wharf, which very materially alters our position; we are now obliged to lay vessels stern up with their heads down.

2387. Have you the same accommodation for them now?—No.

2388. Have you been obliged to send some away?—I am not aware of it; we have been obliged to stretch and strain those points; we have only got this frontage, and we have done the best we could. I am not aware that we have ever refused to unload a vessel. If it has been so, it has been because we have a good many ships; they come up, and sometimes our warehouses are full; it requires ground-floor accommodation. It is not the want of accommodation for vessels, but of warehouses. There may be instances of that kind.

2389. You have stated in answer to the question 254, in your evidence in chief, "At Gravesend there is a small jetty belonging to the Falcon, near to the jetty; they always had paid 3 *l.* or 4 *l.* a year for that; but the landlord found that claim was of a questionable character, and he has refused to pay it of late, or if he does pay anything it is less than formerly." Do you not know that the landlord of the Falcon applied to the committee to have his rent lowered, and on consideration the committee agreed to reduce it?—I have understood that he refused to pay that which he had been paying, because he understood other persons having similar jetties had refused.

2390. Do you not know that if he had refused payment they would have taken his jetty down?—No, I do not know anything of that sort?—I think with regard to jetties and piles, and those sort of things, the navigation committee have very great doubts about their powers as to jetties and piles; I have had a good deal to do with that.

2391. Now, as to this answer to the question 267, "Under the old system, there was very seldom any failure, but they have now amalgamated the matter with the coal-owners, and given them a controlling power, and as such they can work as much or as little as they please." Was not the old system, which you approved of, under the management of the corporation?—Yes.

2392. Is not the present under the management of the coal-owners?—Not entirely, from what I have understood. I have understood the corporation of London appoint a certain number, and that the coal-owners appoint a certain number; that is the amalgamation I allude to; I may be wrong.

2393. Are you aware of the coal-owners employing whom they like as whippers, and the corporation of London appointing the weighers?—It was always allowed that the coal whippers should be appointed by the owners of the vessels; that was always the case.

2394. And any injury the public may sustain by the colliers not being unladen promptly is attributable to the system the coal-owners have now adopted?—I think by their influence it has an effect, and it is a very material one.

2395. Have the goodness to tell the Committee at what time, and on what occasions the treat you spoke of was given to the committee?—I understood a treat was given, but I had no authority for saying so, nor can I state that it was so.

2396. Then are the Committee to understand that the greater portion of the evidence you gave of the state of the river is, a good deal of it, from hearsay evidence, not all from personal experience?—There is a certain part of it hearsay, but the principal part of it is from experience; many vessels get on these shoals in the river.

2397. Where?—In different parts; I especially confine myself to my own neighbourhood; I can assure you we have continual circumstances of that sort arising within our immediate sight, from the counting house.

2398. Did you ever complain of those shoals to the Trinity-house?—Yes.

2399. In writing?—Yes.

2400. Have you made any effort to remove them?—They have materially assisted us.

2401. Have the harbour-masters assisted you?—I do not know that they have; the Trinity-house have been very kind. We paid them 40 *l.* at one time; they say if the men cannot work 40 tons into ballast for lighters, all that is short over that we agree to pay for. It was close off our premises.

2402. For your personal convenience?—Yes; but why should it have been in?

2403. You said a portion of that arose from an alteration in the current of the river?—Not in that part. If we had not gone to work with barges, we found our vessels could not swing round without touching the ground.

2404. Is it not a necessary consequence, that all persons engaged in trade take the means to render that trade as profitable as they can by obtaining every convenience?—Yes.

2405. It has happened, from the misconduct of parties throwing rubbish into the river, there has been an alteration in the current of the river, and a shoal has arisen opposite to your wharf, is not that the case?—Yes, I think so.

2406. Is not the bed of the river silted up opposite your wharf?—That is one point; but as to the starlings of the river, they remain as they were before, except what we have done since, on which we have spent 2,000 *l.*

2407. Am I to understand from you that you did think it advisable to pay the Trinity-house a certain sum of money for removing a certain quantity of ballast opposite your wharf?—A certain shoal.

2408. Which shoal was occasioned by rubbish being thrown in near London-bridge, and the alteration of the current of the river?—Both.

2409. Mr. *Angerstein.*] You have alluded to a Bill Mr. Alderman Wood has brought in to restrain steam-vessels passing above Blackwall; do you allude to the one brought in on the 25th of March 1836?—The object of that Bill was, if carried, it would produce what I complain of, that no boat would come up to be navigated on his principle; they would be stopped below. According to that Bill, which I have possession of, the effect of it would amount to the same thing, that really if a vessel is to kill an hour coming from Greenwich up to London-bridge, she must bring up alongside some tier or another to kill that time; she never could be navigated; it requires steerage-way.

2410. Captain *Alsager.*] What do you call steerage-way?—With the tide you could not go with less than seven miles an hour.

2411. What do you call steerage-way through the water with a steam-boat; two miles an hour?—Yes, thereabouts; two miles, or three miles and a half.

2412. Two miles and a half or three would be steerage-way?—Yes, I should say so.

2413. In addition to the force of the tide?—I should think so.

2414. Mr. *Chairman.*] Is it your opinion there is any jarring of authority between the Thames navigation committee and the Trinity-house?—No, I think not.

2415. Nor any other authority?—I think not, that I am aware of. I think the Trinity-house is inclined to be extremely kind.

2416. Captain *Alsager.*] Are they very attentive to every remonstrance?—Yes.

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2417. Provided the materials are such as they can dispose of again?—Yes.

2418. The *Lord Mayor.*] Did not the navigation committee listen to your complaint?—The London-bridge committee would not hear us at last, and in the navigation committee we were always thrown off.

2419. Are you not aware, from the knowledge you have of the corporation of London, it is usual upon all complaints for the members to attend to them, and with zeal?—We have gone through all that long ago in my former evidence.

2420. You have no particular fault to find with the navigation committee for a want of attention to business?—We have not applied to them since they refused attention to that tier.

Mr. *Nathaniel Gould*, called in; and Examined.

Mr. *N. Gould.*

2421. *Chairman.*] WHAT is your avocation?—A merchant and shipowner; but as connected with the port of London, I am one of the directors of the Commercial docks.

2422. The *Lord Mayor.*] Can you state if the river is much better now than formerly?—As far as my own opinion goes, merely that of a person in the habit of going on the water a good deal, I should say it is better of late than it has been formerly, and particularly for some short time past.

2423. *Chairman.*] State, as nearly as you can, within what time?—I should say the whole of the spring; since the winter, it has been better than I have known it.

2424. The *Lord Mayor.*] Have you seen Sir John Hall's plan for mooring the colliers?—I saw one eight or nine months ago, if it be the same. It was in consequence of that plan I gave evidence before the port of London committee at Guildhall.

2425. Have you any objection to that plan?—Very strong. As a commercial dock director, we have an idea that it would destroy, or greatly impede, the entrance into the commercial docks. Sir John Hall in that plan was for mooring a tier of vessels off Cuckold's Point, and we have a very strong opinion, though we cannot say that we are right in that opinion, that by mooring the vessels there the scouring that would take place from the mud-bank would be carried on and deposited in the little bight at the entrance of our dock. If it once got in solution with the water, we think it would be deposited in that particular spot.

2426. *Chairman.*] You are distinctly of opinion that the tendency of the mooring the ships would be to remove the sediment at the bottom of the river?—I should say, as far as my observation goes, it has that effect; what becomes of it afterwards, or where deposited, I do not pretend to know. We know it from our own buoy. The water deepens and the mud loosens during the season, when the timber ships come in and moor there, preparatory to going into the docks.

2427. From your experience of the port of London, are you of opinion the coal trade would use docks?—If I were to take my experience from what I see of the Baltic timber trade, I should say they would not, indeed I am positive they would not, except under compulsion; for I have a little document here that would show how little they would be likely to use it when even the foreign timber ships will scarcely ever use docks. There is a return (I took it on Saturday) of the wood-laden ships that entered the port of London from the 1st of January to the 24th of June. There were 184 timber-laden ships, of which 178 are foreigners, and only 6 hitherto British ships from the colonies; and of these 178 foreign only 41 went into dock at all; they all discharged their timber cargoes in the river.

2428. For the purpose of saving the dock rates?—Yes, and time and expense, in fact. There is another return, from January 1830 to 1831. I have taken out the number of wood-laden ships that entered the port of London, and it is 581 in 1830; 283 of those discharged in the river, and 298 went into dock, the 298 being almost entirely British ships with colonial cargoes. In 1831 there were 659 vessels, timber-laden, entered the river; of those, 392 went into dock; I think that nearly three-fourths of those were British colonial laden ships, and the remaining 267 discharged in the river; and I am quite positive, from the feeling that I have heard expressed by the coal trade, that nothing but compulsion will drive them into docks.

2429. Have you formed any opinion of the increased charge of coal, suppose they were to go into dock?—I have not; I have seen statements occasionally put forward. I mix much with people connected with the trade of London, but I have

have found that it is not the expense, so far as you can say positive expense, but it is the longer time it will take in discharging, as they conceive, and the increased expense of bringing up the coals in craft. They tell me if they go further down than the Pool, they could not in the same tide get the barges up; and if they went into dock, they say that they would lose probably two tides, and very frequently two days; whereas they now bring them up, by their exact knowledge of the tides, in one tide. I am not in that trade; I merely mention what I understand to be the ideas of those who are.

2430. The *Lord Mayor.*] You are of opinion that the river is sufficiently clear under all the regulations of the port of London?—I have no occasion to say it is not. I have seen the Pool fouled after a high wind, and have been stopped three quarters of an hour to get through; it is a rare occurrence.

2431. Were you party to a petition, signed by 5,700 of the corporation of London, with reference to the Pool?—No, I never signed a petition.

2432. Do you know anything of it?—Yes; I have heard that when it was first sent round, with part of the prayer of the petition, and was signed by these parties so numerously, that afterwards there was attached to it, before it was sent into the London port committee, some other matter, on which some of those who signed it first signed a counter-petition. That had reference to the mooring of vessels on the south side of the river, I understand, by which, as I have stated, I think the Commercial dock entrance would be considerably interfered with, and the Surrey Canal and the East Country dock would also.

2433. Do you know any of those who signed the counter-petition?—One man I could speak to, Captain Maugham.

2434. He is connected with one of the docks?—Yes, he is the London dock-master.

2435. *Chairman.*] Are you aware that different plans have been suggested for the mooring of vessels?—Yes.

2436. To which do you give the preference?—I am not practically sufficiently acquainted with the subject to speak to that; but one point I did speak upon at the port of London committee in the city, that if they were moored in the manner recommended by Sir John Hall, I thought it would prove dangerous, in consequence of the anchors getting foul of the chain.

2437. That is, mooring fore and aft?—Yes.

2438. The *Lord Mayor.*] You are aware several accidents have occurred in the Pool; to what do you attribute them?—To various causes. It is difficult to get the captains, at least such as the coal captains, to pay strict attention to the orders given. We have once or twice complained at the Commercial docks that they make fast to our buoy, and that we are afraid of the moorings being carried away. We have within this fortnight written to the harbour-master, and orders have been given, and there is no further reason to complain; I mean the buoy opposite the gates, near the Dolphin.

2439. *Chairman.*] What time had intervened between the mooring of the ships in the places you complain of and the time they were removed in consequence of the complaint?—They were not removed in consequence of the complaint, for they were removed before. But I should mention, that if the vessels are driven from their moorings as at present in the Pool, they must annoy the river navigation elsewhere, and also the dock entrances. The trade of London has so wonderfully increased in coals of late by the consumption in steam-boats and manufactories that have grown up, and the making of engineering machinery, and a great deal of other iron work, the commerce in coals must continue to increase very much indeed; and if even the present moorings remain as they now are, and there are the same number of vessels in the Pool, I hardly see how they will avoid, in a high wind, establishing themselves at the Commercial and other dock entrances, which will be hampered with them before they get into the Pool. I do not see at all how the navigation can be kept clear below if the ships are driven out of the Pool.

2440. The *Lord Mayor.*] Are the Committee to understand that if the space of 300 feet be strictly kept, it will interfere with the entrance to the city?—I should think it would. I should be glad if the entrance of 300 feet or more were kept, if it could be, as a highway, but not to the detriment of the port of London.

2441. Would it inconvenience the entrance to the Commercial docks?—It does not; but if you reduce them in the Pool they must hang about us. I do not see

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how you can prevent having those docks hampered if you take the vessels out of their place in the Pool.

2442. Mr. *Young.*] Might not the tiers of colliers be moored lower down the river than where they terminate at present?—They might, but not according to the plan which Sir John Hall had drawn out, which, as I said before, interferes with the Commercial docks very materially.

2443. Could you see any objection to some of the tiers being placed at Deptford, opposite the Victualling-office?—I should see none; I am not speaking as a merchant's captain, coming up the river as a highway; I see none as connected with the port of London. There may exist some; the large timber ships are obliged to lighten themselves there; we own several large ships which it is necessary to lighten there, to bring them into dock.

2444. The *Lord Mayor.*] You are of opinion, if Sir John Hall's plan for mooring colliers were carried into effect, there would be a great deposit of mud at the entrance of the Commercial dock?—Certainly; it was from that fear I gave evidence before on the subject.

2445. *Chairman.*] The inconvenience, from what you have stated, is that the moorings should be varied; that if the moorings took place in one part of the river always, it would occasion a shoal on the opposite shore?—It would, in my opinion, occasion a shoal somewhere; I cannot say where; opposite the entrance of the Commercial dock, it is our fear. We cannot speak positively what the result would be, but the effect has been that the shoals do increase in the river, and that the water is deeper where the ships are moored. I take it as a matter of consequence, that if a tier was placed to the westward of the Commercial docks, that the silt would be driven from the bottom by the operation of the current, and would be deposited at the entrance to the docks, and such a hill of mud would be to the company's inconvenience.

2446. Then if that mooring were removed to the part where you anticipate the shoal would be, that shoal would be removed?—It might; I think it might be, but that spot would be the very entrance to the docks, and not practicable.

2447. The *Lord Mayor.*] Can you say, from your having frequent occasion to go up and down the river, what is the usual conduct of the harbour-masters?—I have no reason to complain of them. I do not know them when I see them, except that I understand Captain Fisher is one; I cannot speak as to any knowledge I have of them personally.

2448. In your official situation as director of the Commercial dock company, have you had any occasion to complain to the navigation committee of obstructions?—None, except of the colliers that have been lately hanging upon our buoy, and threatening by their numbers to carry it away and destroy it, but that is remedied.

2449. Are the Committee to understand, that as the state of the river has been kept within the last few months, if it is always kept so it will be perfectly satisfactory?—I think so, as far as my observation goes. I should like to throw out one or two points about steam navigation; I have seen a great deal of it, particularly in America, and many accidents arise from it in the Thames, a portion of which might be prevented if the American mode of steering from the fore part of the vessel were adopted. The other day I heard, on board one of the Greenwich boats, conversation and language very unbecoming from the man at the helm to the pilot; the man on the box was making signs which the man at the helm could not comprehend; he kept crying out to those near him, "Damn that fellow, why can't he make better signs; who the deuce is to understand his motions?" There is another point we differ in in our steam navigation from the Americans; they work nearly all their engines separate, by which means they can back and fill with their paddle-wheels at the same moment, so that vessels of any size turn round on their own lengths by backing one paddle and plying the other. I have written in the Nautical Magazine and to most of the steam-boat companies on this subject, but they laugh at it; the men who have not seen it will not understand; it is a fact that their large boats will go between the ships and turn round the same as a sculler does.

2450. Captain *Alsager.*] Has not one of the Scotch vessels, the Perth, two engines?—It most probably has two engines, but I am not aware that they work detached, as I have described. There is another point I would wish to mention, that has struck me; I have heard one person speak of it before, as to the improvement in the Thames; whether it would be practicable to remove or cut through the mud at Cuckold's Point, if the expense is not too great. There is a peculiar angle

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angle at that point (an awkward point to double at any time), if that could be cut through, it would probably open the navigation very much.

2451. You think the remainder would wash away?—Yes; it is common in America, in the low lands, to cut through the banks of the river, and the force of the water keeps it clean enough for river navigation. I should think that in the construction of steam-vessels they should draw as little water as possible; but the state of the river, as to navigation, may be altered, I think, by the construction of the iron steam-boats, to which science is about to be applied.

2452. *Chairman.*] Could you suggest anything to regulate the rate at which the vessels should move?—No, I cannot. Having been accustomed to ride a great deal, I find when you get into a crowd or other impediment, the shortest way and the safest frequently is to gallop out of it; and if you stop the steam at a particular juncture, it may be at a period when by going on faster you might leave the impediment behind. It is doubtful whether checking the steam to any certain rule on coming up the Pool is right.

2453. What principle do the Americans adopt as to light?—At the mast-head and forward.

2454. Does not the forward light impede the sight of the steerer?—No, but the helmsman is in the fore part of the ship, on an eminence raised to keep him from conversing with the passengers, and to give him a clear view of all before the vessel.

2455. Being so fore, would not his sight be more subject to be impeded by the light than if he were aft?—No.

[*The Witness delivered in Papers.*]

Mercurii, 13° die Julii, 1836.

MEMBERS PRESENT.

Mr. Labouchere.	Captain Alsager.
Mr. William Crawford.	Mr. Angerstein.
Mr. Alderman Wood.	Mr. Warburton.

MR. LABOUCHERE, IN THE CHAIR.

Richard Lambert Jones, Esq., called in; and Examined.

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2455*. Mr. Alderman *Wood.*] WERE you chairman of the London Bridge committee from the commencement of its building?—Yes.

2456. After the new London Bridge was completed, did the contractors proceed to take down the old bridge under the terms of their contract?—Yes, they did; we made a contract with the contractors of the new bridge, Jolliffe and Banks, to take it down, under a specification of Sir John Rennie, and with conditions enumerated in that specification, that they were to use such portion of the old materials as he might direct in the river for the purpose of filling up the immense holes that had been made by the cataracts on both sides of the bridge before it had been removed. We did not pay the contractor the total amount of the contract till we had had a certificate from Sir John Rennie that it had been completed under his directions. During the period of the operations there were frequent complaints from Blenkarn and Knill that the stuff was thrown into the river to a greater extent than ought to be; we had six or eight meetings of the contractors and the engineer to hear the complaints of Blenkarn and Knill; and the answer of the engineer was, that it was necessary, both for the protection and consolidation of the bed of the river, and also for the preservation of the new bridge, that there should be a great quantity of material thrown into the river for that purpose. That was met by Messrs. Blenkarn saying, that there was more than ought to be. We were not the judges, but left the acting engineer to be the judge on our part, and he contended that there was not more than necessary. We had a sub-engineer also, whom we paid 200*l.* a year, to direct where this old material should be deposited, because under every arch where the waterworks had been there was a continual breaking up of the bed of the river. I believe at low-water there was a depth of 15 to 25 feet.

2457. They complained that in the filling up of those holes as the tide turned, it drifted in upon their wharf?—Yes. I dare say something of the kind must have occurred, but my own impression is there was no more thrown in than was absolutely

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necessary to fill up the holes. There was a vessel, what we call a funnel vessel, specially made to deposit it in the hole; they took it over a large hole, and let it off with a trap, so that they would throw down 20 tons at one shoot.

2458. Mr. *Crawford.*] What was this stuff composed of?—The rubbish of the old foundations of the bridge, which, had it not been there, the engineer represented to us that he must have brought it there.

2459. Mr. *Angerstein.*] Should it not have been the stone, but not the rubbish?—The contractors were desirous of having as much stone as possible, but they could not well separate it; large portions of stone were thrown in.

2460. Mr. Alderman *Wood.*] Has the drawing up of the old foundations been completed as far as is necessary for navigation?—Yes; but since we have abandoned it, upon the report of the engineer that everything that was necessary was done, the water has ebbed out more, and consequently the remains of the old bridge have shown perhaps more than they ought to have done in the river, because Sir John Rennie's report to us was, that there ought to be not less than from three to four feet at low-water, over the highest part of any portion of the old bridge, which was left remaining, and I believe he left it in that state; but subsequently in very dry seasons the water has ebbed out more, and that has caused Blenkarn and Knill to go to the pains of taking more out, and they have gone to work in that way, that we have felt it our duty to call Sir John Rennie's attention to it, and to know whether that was proper for them to do, and he has written to stop them in their proceedings. Their object was to have much larger vessels coming there at all times of the tide than ever was contemplated by Sir John Rennie; those large steam-vessels.

2461. Has that arisen from your fear that it might endanger the foundations of the new bridge?—Clearly so. Sir John Rennie has written to us within these six weeks to say that they had done that; we called his attention to it; and when he did answer it, he said that they ought not to have done so much; we then directed our solicitor to give them notice to stop.

2462. Then they have begun to clear it in order that they may bring in large steamers there?—Yes.

2463. Had they applied to the Lord Mayor, as conservator of the river, for a power to do that?—They had; and the navigation committee referred them to us, and we directly called his attention to it; that there were these parties applying for it; that they were commencing indeed; we called his attention to it.

2464. Did they begin to draw materials from that spot without any permission or any application?—Without any application; and then our attention was drawn to it.

2465. Mr. *Angerstein.*] Mr. Blenkarn stated that there were some of the old piles yet remaining, and seen at low-water?—I should think not seen at low-water; I should think that was hardly possible. If Mr. Blenkarn has stated that, I should think that has arisen in this way, that there are innumerable piles remaining under the old foundation, and if he went to disturb that foundation it is possible that he may have loosened some of those piles.

2466. If it is true that there are piles standing up now, must it not endanger the navigation of the river?—Nothing of the kind can be seen; but we found the piles of the old bridge in such an extraordinary position that when we were removing the old materials of the bridge, we thought that everything was clear, and in the course of the night the tide would act upon it, and up starts a pile; and I have no doubt that if there have been piles seen since we have abandoned it, they have been disturbed by the taking away the remainder of the foundation. It is removing the foundation which causes the pile to move, by Mr. Blenkarn's interfering with that portion which ought not to have been removed. If there have been any piles seen since we have abandoned taking away any more of the materials, it must have arisen from disturbing the bed of the foundation, which Sir John Rennie thought ought not to be interfered with.

2467. Mr. Alderman *Wood.*] Then you have done everything in your power for the removal of the old bridge, under the direction of Sir John Rennie, and you are not aware that there is any inconvenience at the present moment?—Just so; it may be very desirable at the same time for Mr. Blenkarn to have deeper water than Sir John Rennie advises to exist at that place.

2468. If there should have been anything like those piles having appeared, you will take every means to inquire into it, to get them removed if it should be the case?—I should say, as regards the committee to which I belong, we have nothing

to

to do with it now; we have done everything which we were justified in doing, and if there is anything more to be done, it is handed over to another body, which is the navigation committee.

2469. *Chairman.*] Are you prepared to state to the Committee a decided opinion that nothing more requires to be done with regard to the removal of the old bridge?—I should not say that, for this reason, that we do not know what the tide may ebb to, the water ebbs out so low; but I should say at once, if you see any portion dry, that is not proper.

2470. Whose business is it to remedy any inconvenience that may exist with regard to the remainder of the old bridge?—I should say first it belongs to the navigation committee, and there is a second body who are always ready, that is the Trinity board, to remove any shoals in the way of the navigation of the river, upon their attention being called to it by the navigation committee. One of the elder brothers of the Trinity-house was called a few years ago upon the subject, and their excuse was, that as long as London-bridge remained they could not come above it, but as soon as that was removed they should be able to remove all those shoals.

2471. At present would it be obligatory upon the Trinity board to remove any shoals or obstructions caused by the remainder of the old bridge, if the navigation committee represented to the Trinity board that public inconvenience resulted from it?—I should say certainly not; because it is a matter rather of courtesy with the Trinity board; they pick and choose what they will take. They say, "No, we have the monopoly of getting ballast in the river, and this is not good ballast;" it is like a dustman who says, "I will not take brick rubbish away, but I will take all your dust."

2472. Supposing the Trinity board refused to take it away, is there any other body upon whom it would be obligatory to remove it?—Yes, the navigation committee.

2473. Mr. *Angerstein.*] Do you happen to know the least depth of tide that existed last summer at the bridge at low water?—I believe in one instance it was as low as two feet.

2474. And Sir John Rennie provided that there should always be three?—From three to four feet; but that was in a very dry season; last season was a remarkably dry season.

2475. Do you conceive that if the bed of the river was lowered within the new bridge to the extent that Sir John Rennie recommended, it would injure the foundation?—Certainly not to that depth; but the tides have so varied in their ebbing, that it is a question now under consideration whether Westminster-bridge will not be removed by the very ebbing of the tide.

2476. *Chairman.*] What are the limits within which the conservancy of the city of London extends?—The Staines-bridge and the stone on the Essex coast.

2477. Is the city of London bound to keep the river in a proper state between those limits?—I should think they are. On the upper part of the river they have the power by Act of Parliament to do those measures, and Parliament has given them power by putting a toll on.

2478. Alderman *Wood.*] Has there been any communication between the London-bridge committee and the navigation committee upon those points?—As respects the removal of those old materials there has.

2479. *Chairman.*] Do you mean to state that in the case of a shoal existing in the river, which was inconvenient or dangerous to the navigation, the city of London would be bound to remove that shoal?—No; but if that shoal remained, either the Trinity company or people that make a trade of it would be very glad, with the leave of the corporation, to do it. The way in which it is done is this: if a shoal occurs, attention is called to it either by parties navigating, or some other source, and then either parties who make it a trade to get ballast in the river are applied to, and put their dredging machine over the shoal and take it away, or if it is ballast the Trinity board are applied to. There was an instance lately in which they were applied to, and they brought their ballast engines and took it away, because they thought in principle they were bound to do it.

2480. Does not the Trinity House hold that they are not bound to remove shoals except when it suits their convenience for the purpose of getting ballast?—Yes, they do; but they frequently do it.

2481. Do they constantly do so?—I never heard them object: but in the case of the rubbish of old London-bridge they said, "This is not ballast."

2482. Did you ever hear of an application being made to the city to remove a

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shoal off Woolwich, the Trinity House refusing to have anything to do with it?—No; but I have heard the late Mr. Rennie state that Government spent many thousands a year in taking the mud from the front of the Woolwich shore, and that was caused, he said, by the flowing of the tide upon that side. That, I dare say, the Trinity company and no other parties would take, because it is not a valuable commodity.

2483. In the case of a shoal injurious to the navigation, but not composed of materials that were of any value, whose business would it be to remove that shoal?—I should say it would belong to the parties whose property is near the shore.

2484. Do you mean that the landowners, whose property was upon the banks of the river, would be obliged to remove it?—I should say it would be their interest to do it, in order to get an approach to their own wharf.

2485. Mr. *Crawford.*] At present do you understand that the relative rights and obligations of the corporation of the Trinity House are insufficiently defined in respect to clearing obstructions in the river?—As respects clearing obstructions in the river I should say so.

2486. *Chairman.*] Have the city of London any funds applicable to keeping the river in a proper state?—I do not think they have; the fund is not equal to the charges upon it.

2487. Mr. *Crawford.*] You are not aware of there being any fund at present applicable for removing obstructions, or making improvements in the navigation of the river?—Certainly not.

2488. *Chairman.*] You state that the city of London have no funds applicable for that purpose, and that they are obliged to depend upon its being a profitable speculation for the Trinity House, or for private individuals, to remove valuable materials for the sake of selling them?—Yes; except the towing-paths above bridge.

2489. Do you think it would be desirable that means should be found and power given to some parties to keep the river in a proper state by removing shoals which might not be of a nature to remunerate those who remove them by the sale of the materials of which they are composed?—Yes, I think so; I think there ought to be means given.

2490. Have you any particular knowledge of the river?—I have only a general knowledge.

John Drinkald, Esq., called in; and Examined.

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2491. Mr. Alderman *Wood.*] ARE you a shipowner and lighterman?—I do not know what I am, exactly; I have been out of business a considerable time.

2492. You are a member of the corporation?—I am.

2493. You have served the office of master of the Watermen's Company?—I have.

2494. What is your opinion with regard to moorings and buoys in the river?—My opinion is, that buoys and moorings in the river Thames would be a perfect nuisance; wherever there are any moorings the gravel is sure to accumulate; and another thing is, that they are a great nuisance to small boats upon the river Thames.

2495. Supposing there were a chain of them, that would be a still greater nuisance than if they were separate?—The fact is, that when moorings are laid down, the chains are generally laid from one side of the river to the other; if you were to have single buoys, or single stones laid down, you always find an accumulation of shingle or mud gets round them, and lessens the depth of the water.

2496. With regard to colliers lying in the river, is there any great obstruction?—I never heard so much about obstruction till the St. Katherine's docks were established; I have been upon the river Thames, as a lighterman, since the year 1787; we used to navigate before any of the docks were established, and we never found so much difficulty in navigating till this dock was made, and we have never heard so many complaints till this dock was made; and the reason is, that they bring up such large ships as never before came up; and I will state that we never allow two coal-barges to be moored alongside of each other; that would be 34 feet; but I have seen a large ship from the East Indies come up to St. Katherine's dock that could not be less than 40 feet beam; I have seen her have two steam-boats alongside of her, and one towing ahead. Now two coal-barges are not allowed to moor by the side of each other, under a penalty of 40*s.*, and I have inflicted that penalty several times.

2497. But the steam-vessels of which you speak were not stationary, but they were

were towing the ship up?—They were lashed to the side, but they were passing to the docks.

2498. With regard to the licensing wherries, do the Watermen's Company object to the licensing of watermen with larger boats than the common run?—Certainly not; if a boat exceeds the dimensions we are glad to license it. There are large boats at Gravesend, and we grant them licenses for eight; but the fact is, the men cannot get employment for two men in a boat; and if the boats were built larger, one man could not navigate them; and with those large steam-boats coming up the river Thames, it is impossible that anything can live. I am very glad I am not a lighterman now, for I should be dreadfully alarmed, for it is of no consequence what the size of the vessel may be; and if something is not shortly done by the Legislature of the country, I am satisfied that there will be 800 or 1,000 lives lost in our steam-boats, they load them so unmercifully. The Emerald had 1,300 passengers paid for; the proprietors admitted themselves 1,100, and so have the proprietors of the Hero, the Venus and the Albion; it was only last Saturday night that the Star steam-boat had 1,000 passengers in, and she could not house one-fourth of them.

2499. Will you state the tonnage of each of those vessels?—I have seen the Brilliant, which is registered 180 tons, that, according to three to a ton, would give 145 passengers; I have seen that boat in such a position, before she was lengthened, that the sills of the side windows have been in the water alongside the Gravesend Pier.

2500. What was the tonnage of the others?—The Hero, the Venus and the Albion were crowded beyond measure, but I cannot state what their registered tonnage is; but three passengers to a ton is more than enough for any one of those vessels. In bad weather there is no shelter for one-third. I have been on board when one-fourth could not get shelter.

2501. Can you describe the state of the watermen with regard to their finances?—They are in a most deplorable and horrible state; the fact is, that the steam-boats coming up, the swell is so much upon their boats, that their boats are knocked to pieces sometimes of a night, and the men are out of employment almost entirely.

2502. Could they, if they were inclined, in any way obtain new boats of a size which would make them more safe?—They have not got the money to buy boats. In the year 1827 or 1828 the Watermen's Company went to the expense of building a boat, and giving notice to every boat-builder that we had a certain boat built, a flat-floored boat, and we had models for them to see at the Watermen's Hall, to request that they would build no boats under those dimensions; but we have frequently had boats brought to us to be registered that we would not register at all; they have been unfit, and not coming within the dimensions; and I will state the reasons: there are a great number of gentlemen very fond of funnies and boats to use themselves; they get tired of them in a year or two, and then they make a present of them to watermen; and if we have licensed a boat, they turn those licences over to such boats, and it is impossible for us to detect them. I had one day 150 watermen to punish, and we find that they are in such a deplorable state, that when we punish them they must go to gaol.

2503. They have been using those small and dangerous boats without your licensing them?—They have; but those that we do license are not capable of standing the swell of the steam-boats.

2504. What is your opinion with regard to the passage in the Pool, whether there should be 300 feet, more or less?—The fact is, that I am satisfied that 300 feet is more than enough up to St. Katherine's docks; because the bye-law says you must have 300 feet; I opposed it, and said it was impossible we could get 300 feet. But from St. Katherine's docks to London Bridge was left out entirely. Although I spoke in the common council against granting 300 feet, it was carried against me.

2505. Then it was not continued above St. Katherine's docks?—It was not.

2506. With regard to collier docks, what is your opinion upon those?—I am satisfied that if the colliers are taken out of the river Thames, that the river will grow up in such a way that large ships will not be able to navigate up the river; it is the colliers that keep the water deep. I have known that when colliers have been out of the Pool from gales of wind and a variety of causes, that the ground has got up about a foot in a week; and when the colliers come again, they let go their anchors and stir up the ground, and then that washes away, and the ballast-lighters take the shingle away. I do not know that I can give a better definition than

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than this: that when we used to have West Indiamen discharging in the river Thames we had a great deal of water, and since that time, in places that used to have 16 or 17 feet water, you will not now find above six or seven or eight feet. In fact, since the collier tiers have moved from the east end of the London docks the ground has got up so that the lightermen going down there take the ground in the middle of the river. Another thing is, that the colliers never will go in unless they are compelled to go in. It will enhance the value of the coals, as a matter of course; the delay is so great in getting them in and out of the docks that the expense must be a great deal more. Barges must go down at certain times of the tide, and they must wait before they can go into the basin, and it is more than ten to one that they would not be loaded to come out in time, so that they must have a greater number of coal-barges than they have at present, and the price of coals would be enhanced in consequence of it.

2507. What would be the additional expense of lighterage?—I should think not less than 1 *s.* a ton for the extra expense of lighterage.

2508. Independently of any dock charge?—Yes.

2509. What is your opinion with regard to the regulation of the speed of steam-vessels?—Several plans have been talked about, but none have been carried into effect. I came up myself on Monday from Gravesend, and the Lord Mayor has got miles and half miles set up in the river. I have come five miles in 20½ minutes, and last Monday I came it in 25 minutes. The elder brethren of the Trinity-house talked about reducing them to half speed the number of strokes; but who is to know the number of strokes? how can I go backwards and forwards in two hours, which is considered 32 miles, unless they did go so fast?

2510. Do you think that very injurious to the navigation in general?—I am satisfied that the steam-boats are injurious; they are a great accommodation to the public, but they are a perfect nuisance in the river Thames. Formerly the ship-wrights used to have two or three men upon their ways scraping the dirt and mud away, and now they do not require any, for the steam-boats do that job for them.

2511. Was the river much more crowded before the erection of the St. Katherine's docks?—I should say the river was not more crowded than since the St. Katherine's docks have been made. We never found any difficulty in navigating before any of the docks were made; it required a little more attention. The principal thing we find a difficulty from is the number of coal-barges; and when the wind is down the ships must drift, unless you mean to do away with the trade of the port. If we had 20 men in a coal-barge they could not keep them straight.

2512. Were there more complaints before the docks were erected than now?—They were always grumbling, but never so many complaints as there have been lately.

2513. Mr. *Warburton.*] Do you mean to say that there is no foundation for those complaints?—Not so much as there was.

2514. When did there begin to be less ground for complaints, which you seem to admit to be in part well founded?—Some time past.

2515. *Chairman.*] What were the circumstances that produced a diminution of the ground of complaint?—The attention of the harbour-masters keeping more room.

2516. How long has that been the case?—For some time past; within the last two months or three months.

2517. Mr. Alderman *Wood.*] There is room enough to bring up a large East Indiaman, with a steam-boat on each side and a steam-boat ahead, to St. Katherine's docks?—I have seen that, and confusion arises from their coming in at a particular time of the tide, when coal-barges and ships are all coming up together.

2518. Is it within the last two or three years that you have seen that?—Within the last two years I saw that. The fact is, that the steam-boats being lashed alongside the ships tow the vessels down. On the 21st of May 1835, one steam-boat was towing five vessels down.

2519. Mr. *Warburton.*] That would rather tend to prevent obstruction, would it not?—I should think not; five vessels, one astern of the other.

2520. Did not it remove them out of the way in a shorter time and in a more direct way than they could have been removed if they had had to back and fill down?—There is no doubt that by being towed out of the way before high water, there will not be so many vessels to go out at high water.

2521. Does not a vessel obstruct the navigation much less by being towed by a steam-boat

steam-boat in a straight line, than it would if there were a contrary wind, and it had to back and fill down?—There is no doubt of it, but we never had such large ships formerly. The large ships used to be more at Deptford and Blackwall.

2522. Mr. Alderman *Wood.*] Was it the general habit in former times in your barges to put in one or two men?—I myself brought a lighter up with 77 hogsheads of sugar before I was 15 years of age; and I am satisfied that in those barges one man is better than two.

2523. Does it require two now?—No, I should say one is quite enough.

2524. Is there plenty of room in the river now for all the coal barges that are loading in the Pool and going up to the westward?—I should say there is plenty of room for everything in the river.

2525. Mr. *Warburton.*] No obstructions at all?—There are obstructions by the steam-boats; those vessels coming up on the flood come with such a velocity that vessels cannot get out of the way, and then get into a scene of confusion.

2526. Captain *Alsager.*] Is it not always the custom with heavy-loaded barges to start at the first of the flood, before any of the large barges come up?—The craft always start with timber at dead low water; but then the craft that go down with the ebb-tide and go alongside of the ships are coming away at all times of the tide.

2527. The proportion of coals that go down is very small in proportion to what you carry up?—Certainly, the empty barges go down with the ebb.

2528. You are aware that it is not the custom to tow up vessels very much upon a falling tide, but that they would tow a large ship up upon a rising tide, therefore they would tow them up at the period of the tide between the last quarter's flood and the turn of the tide?—Generally, they tow them up upon the last quarter's flood, and at that time there are a great number of colliers getting up into the Pool and coasters drifting up; and there are a great number of coal barges getting up, and that creates a great deal of confusion.

2529. How is your argument borne out, when so small a portion of the tide is occupied in conveying large ships up into the docks?—The last quarter's tide is generally about the time when more colliers are coming into the Pool than at any other time; and the rafts of timber that are coming out of the Commercial Dock and the Isle of Dogs do not get out till they can open their gates, and they do not open their gates till the last quarter's tide; and at the same time there are all those colliers coming into the Pool and coasters.

2530. Mr. *Crawford.*] Cannot the colliers, drawing much less water than merchantmen in general, pass over the Whiting shoal much earlier in the flood than merchant ships coming to the docks can?—The fact is, that they do not move the colliers now from below till they are sold, and some of them lie at Greenwich, some at Blackwall Reach, some at Bugsby's Hole, and some as low as Gravesend Reach. The fact is, that those colliers will get into the Pool whenever they are sold.

2531. Mr. *Angerstein.*] Do you know what the regulations of the river are with regard to timber being allowed to lie on the shore of the river?—The regulation is, that they ought not to be there at all; and so is every coal-barge a sufferance.

2532. Captain *Alsager.*] Are you not aware that there are some privileged moorings for coal-barges?—There ought not to be any.

2533. Mr. *Warburton.*] Are you aware that they are bought and sold?—No, I am not. I know that I have been upon the navigation committee, and I always set my face against any grants whatever, for I am satisfied that every projection in the river's way is a nuisance.

2534. Mr. *Angerstein.*] Is that regulation observed?—No, it is not.

2535. Whose error is it that it is not?—It is with the conservator of the river Thames.

2536. Mr. *Crawford.*] Who are the deputies of the conservator of the river Thames, to carry into effect his duties?—The navigation committee.

2537. *Chairman.*] Do you know whether those privileged moorings are sold?—I know that when the parties apply to the navigation committee, it is usual to make them pay a fine for any projection; and if they set their face against a projection being made, and say they cannot grant it, they have built them up without any grant at all.

2538. Mr. *Warburton.*] Any person who proposes to drive a pile in the river, or to erect or repair any wharfage front, is obliged to apply to the navigation committee?—Certainly.

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2539. And the navigation committee usually take a fine upon granting such application?—Generally.

2540. And they also take an annual rent?—They do.

2541. So that there is a revenue for tolerating those things which you consider obstructions?—There is.

2542. What was the amount of revenue which the city raised?—That I cannot tell; but this I can state, that the corporation of London objected, and I objected in this House, to the erection of a pier at Gravesend; and the Bill was thrown twice out in the other House, and afterwards it was taken up as a Government measure, and that nuisance is created; and there is a shoal now created down below by Act of Parliament, which is called the Young Bligh, that runs from Gravesend pier nearly a quarter of a mile across the river Thames, and stops the navigation there.

2543. *Chairman.*] To what purpose is the money applied that is raised in this manner, for allowing obstructions in the river; does it go to the general funds of the city of London, or is it applied to any purpose connected with the river?—It is with the navigation committee; the navigation committee make use of the funds in a variety of ways.

2544. Mr. *Warburton.*] How?—I cannot exactly state.

2545. You were a member of the navigation committee?—I was. The fact is, that the navigation committee are allowed a certain sum per annum.

2546. For dinners?—For dinners, out of the funds of the corporation, and not from any of these sums.

2547. Do the fines and rents levied in this way go into the general city funds, or are they paid into the funds of the navigation committee?—They are paid into the funds of the navigation committee, and not to the city funds.

2548. *Chairman.*] To what purpose are the funds of the navigation committee applied?—There are a great number of moorings, and so on, that those funds are applied to.

2549. Mr. Alderman *Wood.*] Is there not a heavy expense in the towing-paths, that is paid out of the navigation funds?—Yes, certainly.

2550. *Chairman.*] Do you consider that the navigation committee would be bound to remove a shoal in the river, which shoal the Trinity board had refused to remove, because it would not answer their purpose to sell the materials for ballast?—I should think that there was no law to compel them, and neither are they bound to do it.

2551. Do you conceive that there is any public body who could be compelled to remove any such shoal as the law now stands?—The Trinity House say that they are not, and they have the exclusive privilege of ballasting the ships. I will give a case in point. When I was on the London Bridge committee, I applied to the chairman of that committee to request him to get the Trinity board to remove the shoals; and I advised him that, if the Trinity board refused to send their ballast ships above, to remove those shoals, that they should get the Legislature to authorize them to take the stuff up and sell it.

2552. In the case of a shoal which was composed of materials which were of no value, you have stated that the Trinity House could not be compelled to remove any such shoal?—I am not aware that they could not; they say they are not.

2553. And you have also stated to the Committee that the city of London would not conceive themselves bound to remove such a shoal?—If they were to attempt to do it, they would have fines inflicted upon them by the Trinity House immediately.

2554. So that in the present state of the law the Trinity House would prevent any person from removing such a shoal, and would not do it themselves?—Certainly.

2555. Are you aware of any instances in which it has been very desirable, for the navigation of the river, that shoals should be removed, but which, under the present state of the law, it has been impossible to remove?—Yes; I can name the South shoal at Blackwall.

2556. Was there not a bank off Woolwich that it was considered desirable to remove?—From Blackwall to Woolwich the river is in a horrible state for navigation.

2557. Captain *Alsager.*] In what respect?—The soil must go somewhere when it is washed down.

2558. What soil?—All sorts; gravel and mud, and everything else; and whenever

ever there has been any erection carried out into the river Thames, which there is below Woolwich, the mud has got there.

2559. Did you ever hear the Trinity House object to removing a shoal, the materials of which they could make ballast out of?—Yes.

2560. What does that consist of?—The upper part is a hard crust, which, I suspect, has been made from iron ore; and underneath that is a strong shingle, fit for ballast.

2561. It would be necessary to blast it?—The fact is, that a great deal has been taken away within these last two years, by a machine working underneath and loosening it, and the crustation falls in; and they have taken three or four hundred weight at a time.

2562. Who did that?—The Trinity House; and they left off work, and then they wanted the East India Dock company to give them 2,000 *l.* towards the expense of removing any shoal from the entrance of the East India dock.

2563. That was because the Trinity House found they were incurring an expense for which they had no remuneration?—I conceive that they make a great deal of money for the ballast that they get, for they charge me 1 *s.* 7 *d.* a ton when I have ballast.

2564. Do you know the expense they are at?—No, not exactly; but from the statement I saw, they were receiving 29,000 *l.* a year by ballast. *

2565. Mr. *Angerstein.*] You stated that you recommended some parties to remove the mud from between the bridges?—Not mud, it was shingle.

2566. You alluded to the sale of the material?—The fact is, that the Trinity House could supply the ships with ballast from the material.

2567. Would the sale of that cover the expense of removing it?—Yes, certainly; I superintended the taking out of 230,000 tons of mud out of the West India docks in one year; a part of that mud was carried along the river and deposited above high-water mark.

2568. Mr. *Warburton.*] Was any of it tossed in in its way?—None, that we knew of.

2569. Is that an uncommon practice?—I never dealt in it, and never had anything to do with it.

2570. How

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* AN ACCOUNT explanatory of the Difference between the Gross and Net Produce of the Ballastage in 1832, (extracted from Appendix to Report from Select Committee on Lighthouses, No. 89.)

	£.	*s.*	*d.*
Wages paid the ballastmen for raising and delivering ballast by lighters and barges to vessels in the river, docks and canals, bounties to men for extra work, watching loaded lighters, &c.	12,401	2	–
Expenses working and upholding the steam-vessel in raising ballast, wages to crew, &c.	1,979	13	5
Money returned for ballast entered in docks and canals, afterwards taken on board in the river	83	5	3
New lighters and boats, and repairs to lighters and barges and boats, and the machinery belonging thereto	4,788	9	6
Salaries and allowances to clerks, rulers, rulers' assistants, watermen and surveyor	2,820	14	–
Rent of the Upper Station Office, and taxes on premises at Ratcliff	126	2	6
Repairs of premises at Ratcliff	40	17	2
Pensions to decayed ballastmen and widows	589	2	–
Subscriptions to hospitals, charity school at Ratcliff, donations for relief of the poor, &c.	25	15	–
Printing, stationery, stamps, law charges, and sundry contingent expenses	181	3	7
£.	23,036	4	5

BALLASTAGE in the Port of *London*, showing the Gross and Net Produce in the Year ending 31 December 1832.

	£.	*s.*	*d.*
Gross receipt under the head of ballastage in the river Thames	25,220	19	5
Expenses thereupon, as above	23,036	4	5
£.	2,184	15	–

Note.—422,113 tons of ballast in the year.

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2570. How is it that those wharfingers who have property upon the river banks agree to pay this rental to the navigation committee; is there any legal claim that the city of London have for this rent, which you say is the rent for tolerating the obstruction?—Certainly not.

2571. Then how does it happen that these parties, against whom the city of London have no legal claim, the navigation committee oblige to pay this rent?—It has been a very old custom.

2572. Did you ever hear of their prosecuting parties for nuisances occasionally?—I have.

2573. *Chairman.*] If an application is made to the navigation committee for leave to make one of those encroachments upon paying a fine and a certain rent, is that permission ever refused?—I have known it often refused; and wherever they think it would be a nuisance they generally do refuse it.

2574. Mr. Alderman *Wood.*] Is it not refused occasionally, when it would materially obstruct and injure the neighbours?—They always ask the neighbours on each side whether they see any objection to the piers being carried out.

2575. *Chairman.*] But you have expressed an opinion to the Committee, that to the degree to which it has been carried, it has been injurious to the navigation and the commerce?—In some instances it has; occasionally.

2576. Mr. *Warburton.*] Do you think that it is the fear of being prosecuted for a nuisance, which prosecution will cost them 50 *l.* or 60 *l.*, that induces them rather to pay the rent than to subject themselves to an indictment, in case they should fall under the displeasure of the navigation committee by not paying their rent?—I should think so.

2577. *Chairman.*] For what term of years are those leases generally given?—They are ordinarily given during pleasure; there is no lease.

2578. It is merely a rent during pleasure; there is no agreement of any kind?—No, it is during the pleasure of the committee; and if anybody was to complain of its being a nuisance, the committee would order them to be removed from the port.

2579. What proportion does the fine bear to the rent?—About four years.

2580. When this privilege is once given, is it ever withdrawn as long as the rent is punctually paid?—I cannot charge my memory with any being withdrawn; but I think if there were to be any complaints they would attend to it.

2581. Mr. *Angerstein.*] Is the timber left floating for the sake of the timber itself, or for the convenience of the persons on shore?—I should presume that it is for the convenience of the parties on shore, and not for any other purpose. There is one singular case, of Abbott's brewery; their piers stood obliquely, and they made an application to put them upright on the top; there was a lease of 61 years.

2582. Did they run out to the river?—No, they leant in; and to make them perpendicular they paid the fine of one guinea or two guineas, or something more.

Mr. *Thomas Hossey*, called in; and Examined.

Mr. *T. Hossey.*

2583. Mr. Alderman *Wood.*] YOU are a wharfinger?—I am the wharfinger and agent for the London and Edinburgh Shipping Company.

2584. You have been wharfinger a great number of years; with your boats have you experienced any material obstruction of late in the river?—We do not complain of any particular obstruction; sometimes the Pool, when it is blowing strong from the north-east, is a little narrow, and those are things that we put up with; when the wind is due south-west, and it generally blows due south-west nine months in the year, we do not complain.

2585. Has the obstruction become greater of late?—No; the Pool has been wider the last 10 years than before.

2586. Mr. *Angerstein.*] Has any alteration taken place in the last two months?—I understood that the city authorities have directed the Pool to be kept wider to please some parties, and it has been kept wider; but if it continues to be kept to such an extent as it is at present, it will be very detrimental to the coasting interest, because the coasting interest are put to much inconvenience by keeping a wide Pool.

2587. Mr. Alderman *Wood.*] Do you think now that the Pool is kept as clear as is necessary?—I should say, without reference to any feeling that I have in regard

regard to it, that the Pool at this present moment is kept sufficiently wide for all purposes, and so wide that it is very inconvenient generally for the coasting trade.

2588. Do you think that it would be desirable that moorings should be laid down for the colliers?—There are a great many opinions with regard to that; the coal people object to moorings, but a good practical man in regard to their own business can tell the Committee better than I can; I would not presume to interfere with their matters; they are better able to give the Committee their own views of the case. I suppose that they presume that it would be inconvenient to the lighters if they were laid in moorings.

2589. Are you interested in the coasting trade?—We have a large number of sailing vessels that go to Edinburgh. I am the wharfinger and agent for the Company.

2590. Are you one of the committee of steam-boat proprietors?—I attended the committee of steam-boat proprietors last year at the London Tavern.

2591. You are one of them?—I am one of the committee; but, in fact, it is a nullity now in a great measure, and has almost ceased to exist.

2592. What was the object for which that committee was appointed?—There had been a great many complaints about the large steamers doing damage to boats in the river, and the object of that committee was to call upon Lord John Russell, and to acquaint his Lordship that we were willing to submit to any regulation that he might point out for the better navigation of the river Thames; that was the principal object of that committee. At that time Sir John Hall had contrived to get upon the committee, and his object was to get 300 feet clear passage way; but the committee, generally speaking, were not disposed to interfere with that at all.

2593. Then that committee did not wish the river to be left so wide?—The opinion of the steam committee was, that we should not dictate to Lord John Russell as to the width of the Pool, because if he made the necessary inquiry he would find what was most suitable for the navigation of the river.

2594. What is your opinion of the general exertions of the harbour-masters in the performance of their duties?—I do think that those men are constantly badgered by people on the alert who complain; every time I have complained they have attended to their duty.

2595. Do you think that they do as well as they can to prevent obstructions in the river?—If they do not they are constantly badgered from morning to night. I cannot see the whole state of the river, but I am quite aware, being a water-side man, of the frequent complaints of the people made against them of the Pool not being wide enough to please parties with large vessels.

2596. What width should you say, for the general interests of the navigation, there should be?—I would say, till you get the colliers put into some place out of the river, 250 feet is quite sufficient for the accommodation of the river, because if you keep the colliers in the Pool, if you keep 300 feet, it will injure the coasting trade very much; they must go somewhere; and I defy any man, or any set of men, considering the width of the London river, and the great commerce that frequents it, to give 300 clear feet, and afford accommodation to all the coasting vessels, if they do not go into docks.

2597. Do you think that the harbour-masters have power sufficient; do you know enough of the law to say whether they have?—I am quite aware that if a man lets go his anchor in an improper place the present law will not allow the harbour-masters to remove him; they must give him 12 hours' notice. If the harbour-masters were empowered to take a man who did not remove immediately before a magistrate, and he were fined 20*l.* or 50*l.*, that would remedy the evil at once.

2598. Are the collier-barges any obstruction in the navigation, or are they an obstruction to steam-vessels in particular?—I know that, generally speaking, after a quarter of an hour or half an hour's flood, a very large proportion of the coal-vessels leave the Pool and come up; if the wind is blowing strong from the westward or north-west they drop up, because they come up better than if you pull them right up.

2599. What is your opinion about collier docks?—If you could get the men to go into the docks, it would be a desirable thing; but were you to have the Pool clear of colliers, I think you would, in six months, have six feet less water than you have at present. I am immediately contiguous to St. Katherine's docks, and the tier opposite was removed for the accommodation of the docks, and in the course of

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of 18 months, before that was removed, there was about 13 feet water at low water, and last year we had only 8½ and 9 feet water, and I was obliged to excavate it for some depth; it filled up in consequence of that not being used by the usual vessels in that tier.

2600. What do you think in regard to the increase of price upon the article; would there be any increase?—I would not presume to give an opinion upon it, because it is with a very powerful body, and I will not pretend to know much about their affairs; I dare say that lightermen would complain very much of going into dock if they were compelled, and the ship-owner would complain if he had to pay any tonnage upon his vessel, but to the consumer it would not cost more, and I think that 1*s.* a ton would cover all the expenses.

2601. Mr. *Warburton.*] Would you save much repair of damage that the ship incurs while lying in the Pool?—When you do damage to any colliers, you are obliged to pay it.

2602. Do not you believe that, on the average of ships lying in the Pool, if they do not go into dock, there will be a certain annual expense for damage done?—The outside vessels will get damage, but not the inside ones.

2603. Do not you believe that, in making up the bill for any vessel of its expenses, you will find that there had been certain repairs incurred for damage done in the Pool?—There is not the least doubt of it; but any damage in the wear and tear is always paid for, because, as they are lying at anchor in the river Thames, they are bound to pay for it; if you run foul of any vessel, and injure her bowsprit or bulwark, you are obliged to repair it.

2604. Must you not bring an action; is not that what you are driven to at last?—No; I would account for the damage as one would for a carriage or coach in the street; if any cabman from carelessness runs against your carriage, you make him pay for it.

2605. How do you recover it; by an action?—Unless he is a bad man, he will pay for it at once.

2606. Mr. *Angerstein.*] Are you aware what the estimate of the average cost from injuries arising in the river is?—It is quite impossible to say; perhaps vessels are sailing for a year or two, and never lose a penny by damage.

2607. You do not know what the general average of outlay to cover that amounts to?—No; sometimes with our vessels we do not lose a penny for damage; at other times we lose her bowsprit, and so on, and it cannot be avoided.

2608. Mr. Alderman *Wood.*] What was the memorial got up about to the corporation upon the subject of the river; do you know anything about it?—The St. Katherine's dock gave in a tremendous memorial at one time; I dare say it reached to the end of Parliament-street.

2609. What was it?—It was wanting a wider pool. I was one of those that was in opposition to it.

2610. How was it?—It was in a very queer way; there were a number of respectable names at the top; I read the first sheet; but a deal of it was got in a very queer way.

2611. Mr. *Warburton.*] What did you do in opposition to it?—I have reason to suspect that Sir John Hall wanted the whole of the Scotch tier, from the London docks to the Tower, turned out for his convenience, and if he had done so, it would have ruined our establishment altogether, and I naturally wanted to protect our property.

2612. What steps did you take?—We defeated them in fact, because they wanted too much.

2613. Mr. Alderman *Wood.*] Are the obstructions as great now as they were some years ago, before St. Katherine's docks were formed, to large ships coming up?—The mode of bringing up large ships is very injurious to the navigation of the river. There is a large Indiaman that may be overhauled from 24 to 30 feet; then she has a steam-boat on each side of her, but the paddles are so wide that each of those tug-boats may be 26 feet over; there is 36 feet, and two of 26; but if I had been aware of that question I would have measured them, and been more correct; these coming up sometimes against tide, and very frequently going over the tide, when sailing vessels can only come up the river Thames, it is surprising to me that the damage done on the river Thames is so little as at present.

2614. Captain *Alsager.*] Must it not be very rarely that they come up against tide?—I have seen the St. Katherine's docks vessels after the tide has gone four feet; the London dock, and those large docks, would never presume to do anything

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thing of the kind; and if I had the charge of that dock I would not run a risk of that kind.

2615. Mr. *Crawford.*] Do you know whether any of the large docks can do that?—If they had got active men, and a great number of men, they would not be afraid of doing anything, but the risk is enormous.

2616. Mr. *Angerstein.*] Does not the risk arise from the dock being deeply constructed?—No.

2617. Mr. Alderman *Wood.*] Are there any shoals or banks which you complain of approaching your wharf?—I was obliged to remove the shoal which I had at my own expense; the Trinity House were doing nothing, and if they are kind enough to assist you, then all stuff not fit for ballast you must pay for.

2618. Captain *Alsager.*] Are you aware of any part of the Pool where the depth of the water is lessening?—Opposite the entrance of the London dock, at the Hermitage, if you passed it at low water, I dare say you might touch it with your hand in some places, in consequence of the great deposit that came up after London Bridge was built.

2619. What do you do with that which you take out of the river?—It is attended with a great expense, but it is not fit for ballast; you must cart it into some place.

2620. You do not throw it into the river?—No; but I took some persons into custody when they were excavating St. Katherine's docks; the contractor threw the stuff into the river without the least remorse.

2621. Mr. *Warburton.*] In building London Bridge was not that done?—The stuff was not suitable to the men who were employed, and they threw it into the river without the least remorse.

2622. Is it not a very common thing to carry it away to another spot and then to toss it overboard; is not that the usual mode of doing it?—No; no respectable contractor would ever think of behaving in such an abominable way, and throwing the stuff into the river. One night my night-watchman called me at 10 o'clock, and it was a heavy gale of wind, and raining, and there were six fellows that had a craft right athwart of our tier, and those six Irishmen were throwing the stuff into the water, and I went out and brought back the whole six with me, and they took to their heels when I landed at the stairs.

2623. Mr. Alderman *Wood.*] With regard to the boats below London Bridge, do you think that they are very safe in consequence of the number of steam-vessels? If the boats were skiffs I think that they would be perfectly safe; but I sometimes see at a wharf 10, 11 or 12 common porters go into a small wherry, and a waterman besides, and the edge of the boat is not above an inch from the water, so that it appears to me that the men court the undulation of the water to drown them.

Mr. *John Sedger*, called in; and Examined.

Mr. *John Sedger.*

2624. Mr. Alderman *Wood.*] ARE you a ship-breaker?—Yes.

2625. At Rotherhithe?—Yes; I have three very large premises at Rotherhithe; I have nearly 700 feet frontage to the river.

2626. Are you practically engaged in the navigation of the river?—For the last 20 years I have been in the habit of bringing ships up, from 200 to 2,000 tons burthen.

2627. Have you found any particular obstruction in coming up the Pool?—I have found a vast deal of late years; and very frequently it costs me a great deal of money to bring ships up.

2628. Will you explain to the Committee the cause of that?—From the vast increase of shipping in the port of London, and particularly the coal trade and steam navigation through the Pool, there is barely sufficient room, particularly at Globe Stairs, where we meet with the greatest difficulty at low water; there is not more than 20 feet at low water at Globe Stairs, for in coming along that tier lying there, we are obliged to turn our ships' heads down off Cuckold's Point, for the purpose of dropping them up, on account of the crowded state of the Pool in that particular part; and since the St. Katherine's dock and the London docks have been opened, the ships containing from 600 to 1,000 tons have been brought up sometimes by three steam-boats to a ship, one on each side and one at the head, so that it is quite impossible to drop a ship down with these boats going up, and I have often been put back and been obliged to go to the West India dock by it with an Indiaman.

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2629. Do you think that 300 feet can be kept clear in the Pool for any practical convenience?—I should say certainly not, from the vast increase of shipping there is now in the present day in the port of London; it might have been done very well some years ago, previous to St. Katherine's docks being opened.

2630. What remedy would you recommend for a clear navigation?—There is no other remedy but the colliers to find a receptacle for the shipping.

2631. To remove the colliers?—Yes, to have a collier dock; that is the only efficient way in which you can get at it.

2632. Mr. *Warburton.*] And any other would be a temporary expedient?—Any other way may do for a time, but it would not be an efficient way of doing it.

2633. There is a great increase of colliers, particularly since the great increase of gas and of steam navigation?—Yes, the whole extent now, almost as far as Sea Reach; and if we had to do the same work now as we had some years ago, in bringing ships from Sheerness and Portsmouth, and so on, we should never get from Sea Reach to the Pool by dropping them up; we might by towing them up, but not by dropping them up, as we used to do.

2634. Mr. Alderman *Wood.*] What do you think of the harbour-masters' attention to their duties?—I have always found them alert.

2635. Do you think that they have exerted themselves in the performance of their duty?—I do, most decidedly.

2636. What is the distance of the tier of colliers from low-water mark?—200 feet from low-water mark to the tier of colliers.

2637. What effect have the steam-vessels upon your premises at Globe Stairs?—I have premises at the upper side of Globe Stairs; that is a leasehold property, which I have had repaired twice in the last four years; and I have a freehold dock and premises, which used to be Thompson's dock, below Globe Stairs, with the east wharf, and that dock has been down twice these four years, owing to the washing of the steam-boats; the water has undermined the wharf, and the wharf has come down.

2638. Captain *Alsager.*] Out of your 700 feet frontage to the river, what do you reckon your annual damage?—Those two wharfs have been repaired twice during four years, and upwards of 400 *l.* we have spent upon them; it is planked with three-inch and four-inch plank, and filled up solidly behind with clay.

2639. Mr. *Warburton.*] Have you tried filling it up with chalk?—No; it is very expensive filling it up with clay.

2640. Mr. Alderman *Wood.*] Is there any increase in the banks and shoals impeding the river?—I have heard of one off the Red House where there used to be 18 feet of water, but now there is 14 feet.

2641. Where is the Red House?—Off Deptford, below the East Country dock. That must originate entirely from the circumstance of the steam-boats going up and down so; we used to have mud off the north and south shore, now we have none; but into that part of the river lying in the bight the mud goes; otherwise I could find my way up the main channel of the river just as I could some years ago; there is the same depth of water there.

2642. Captain *Alsager.*] Where is the principal deposit?—I understand it deposits itself at the Red House.

2643. Are you aware of the depth of the water at Deptford, about the King's moorings?—We used to lay there our seventy-fours; and we have grounded there with a seventy-four about a foot.

2644. Are you aware that there is any difference of depth since the vessels were taken away from the King's moorings, which now lie unoccupied?—I am not aware of any, for I have not laid down any ships there of late years.

2645. Mr. Alderman *Wood.*] Does the coal trade assist you by lying in the stream?—By lying in the stream, as they do, it benefits me considerably; I receive some hundreds a year by it.

2646. Mr. *Warburton.*] How?—In the business that I do as a ship-breaker; they, lying such an immense time in the Pool, are meeting with damage continually, and getting their spars and jibs carried away, and their buoys, and getting half knocked to pieces, and they come to me for their materials to repair them with.

2647. Mr. Alderman *Wood.*] Do you suppose that the colliers going into dock would be a saving to the owners?—I have had a great deal of conversation with the captains upon that point, and their opinion is, that it would be a great saving, from the circumstance, that what they now pay to us, as ship-breakers, they would not then pay.

2648. Mr. *Warburton.*] Are you a ship-owner yourself?—I have been.

2649. Can you say, from your experience, that if you leave a ship in the river, instead of taking her into one of the docks, she does meet with considerable damage on the average?—She does, most decidedly.

2650. Mr. Alderman *Wood.*] Do you know anything of a petition that was sent by Sir John Hall to a meeting?—Yes; I had the honour of being in the chair upon that occasion.

2651. What was it?—There was a petition brought there by a gentleman, signed by two individuals; one person's name was Watkins, and who the other was I forget; it was for the purpose of getting the parishioners of Rotherhithe to sign for a space of 300 feet in the Thames, and the thing was argued and canvassed amongst the gentlemen there; we had the honour of the presence of Captain Alsager upon that occasion; and some gentleman moved that it should lie on the table, and it was ultimately carried that it should lie under the table, and that was the finish of Sir John Hall's petition.

2652. Mr. *Warburton.*] What objection was raised to it?—They thought it quite impracticable to retain 300 feet, for the fact is this: supposing you were to get 300 feet at Globe Stairs, that you have full 300 feet upon the ebb-tide, here is one and another drawing out of the middle of the tier going to take the ballast, and the tier parts and expands, and it is impossible to retain the 300 feet.

2653. Of whom did the meeting consist?—Of all the respectable part of the parish of Rotherhithe; it was a public meeting.

2654. What was the meeting called for?—It was owing to the loss of so many lives at that time by steam; there was such a continual loss of life at that time.

2655. *Chairman.*] You have stated that, in your opinion, the only practicable remedy for the inconveniences would be the establishment of a collier dock?—There is no other alternative.

2656. And if that were done, you do not think that it would be indispensably necessary to have a passage of 300 feet in the Pool?—If that was done the Pool would be pretty well clear.

2657. Then there would be no difficulty in having a clear passage?—No.

2658. But without that do not you believe it would be impossible to have a clear passage of 300 feet?—I should say so, decidedly.

2659. Do you think then that it would be very desirable to have a passage of 300 feet; and is your opposition to this petition to be attributed to your opinion, that under the present circumstances it would be impossible to effect that?—I should say you could not keep 300 feet.

2660. Mr. *Warburton.*] Do you think that that would be desirable if there were some convenient place where you could carry the vessels?—I have been looking into that myself, and I do not see where you can lay them; you lay them now from Sea Reach to London Bridge.

2661. Supposing that you could, by collier docks, lay the vessels in some other place, would it be desirable to have 300 feet?—It is not clear, in my mind, that you could retain 300 feet, not for the safe navigation of the Pool; the fact is, that there are so many large ships which used not, years ago, to come up the Pool at all, that are coming up and going down, and some with three steam-boats, and some with two.

2662. You consider it a better thing to have a wide passage than a narrow if you can find a convenient place to stow the vessels?—Yes.

2663. Mr. *Angerstein.*] Is it your opinion that the lying of the vessels benefits the river?—There is no doubt that the vessels lying there, and the water going to and fro as if does, the mud gets disturbed and carried away.

2664. How would that inconvenience be removed if they were placed in a collier dock?—There is one thing to be taken into account, that the colliers create one-third of the mud.

2665. By what means?—From the circumstance of the quantity of dust from the coals loading, and from the quantity of material thrown overboard by them every day; because, if 250 colliers are at work, if there are 250 pounds of ashes, that is a great consideration; and then there is all the sweeping of the vessels, and there is no doubt that they make a great deal of mud in the river Thames.

2666. What situation do you conceive the best for collier docks?—I have scarcely turned my attention to it.

Mr. *Mark Brown.*

13 July 1836.

Mr. *Mark Brown,* called in; and Examined.

2667. Mr. Alderman *Wood.*] ARE you a wharfinger?—Yes, I am.

2668. How long have you been so?—Twenty-two years.

2669. Had you been in the merchant service before you were a wharfinger?—Yes, I was.

2670. What is your opinion now about the present state of the Pool in regard to the difficulty of getting ships to their wharfs; have you any more difficulty now than you had at former times?—I have not experienced more difficulty of late than I did formerly.

2671. What is your opinion of the harbour-masters; are they constant in their attention in doing all that their duty requires?—I have not seen anything to the contrary. When I have large ships of 260 tons coming to my wharf, when I have met with any difficulty, or have been likely to meet with any, I have sent to the harbour-master, and he has made them haul ahead, and enabled me to get my vessel to the wharf.

2672. Has the formation of any of the docks created any difficulty?—From necessity there is obliged to be a great space left to admit of large vessels going into the docks; of course that must narrow the berths, at least it occupies a great deal of the space where vessels formerly lay.

2673. What is your opinion about collier docks?—From my experience about 38 years ago, when I laid in the river, before there were any docks built, I laid repeatedly with vessels drawing 22 feet water at tiers, such as Bell Wharf, Church Hole, Cherry Garden, Cock Hill, and various other places in the river. Now we cannot find 14 feet water. When I have a vessel of 14 feet water lying in the river, she in general takes the ground every ebb, and the impression upon my mind is, that if you were to remove the colliers out of the stream, in a very few years you would have four or five feet less water than you have now. I speak from having taken the large ships out, and I suppose that there is five or six feet water where they lay less than there was.

2674. Do you suppose that any improvement may be made in the river at Cuckold's Point?—That I most decidedly do; as far as my impression goes, I should say that in a national thing of this kind a few hundred thousand pounds ought not to be an object, or if it is a million of money.

2675. What have you there?—This is merely a plan of the river from London Bridge to Woolwich.

2676. What observations have you to make upon it?—From Cuckold's Point a shoal runs out 500 or 600 feet.

2677. Mr. *Angerstein.*] Is that increasing?—That I am not able to speak to; I went down the river about a fortnight ago.

2678. Have you not sounded it?—No, I have not.

2679. Mr. Alderman *Wood.*] Do you think it is possible to keep the space of 300 feet clear in the river?—I should think it is very difficult.

2680. Have you heard much of complaints till the St. Katherine's docks were made?—I do not charge my memory with it. There have been complaints at times from time immemorial, when there has been a large arrival of coals, of parties losing their bowsprits in coming up, and knocking their quarters in, and such kind of things; that always will occur; it depends solely upon the wind.

2681. Mr. *Angerstein.*] You have stated that, if the colliers are removed, it is your opinion that the river would silt up?—I think it would, in a degree.

2682. How does it happen that it does not silt up where the colliers are not berthed, at Blackwall?—The lower you get down the river the more water there is.

2683. There is a very little addition of the water between London and Gravesend?—I have been very little upon the water for the last 22 years; I go, perhaps, twice in the course of the year, when I have ships lying at Cherry Garden and Church Hole, and those places; and the captains complain to me that they take the ground, and do not lie well, which was not the case in former years; but I really am not competent to speak as to Blackwall.

Mr. *Benjamin Whinnell Scott,* called in; and Examined.

Mr. *B. W. Scott.*

2684. Mr. Alderman *Wood.*] YOU are the principal clerk to the chamberlain of the city of London?—I am.

2685. Has there been a return made to the city of the annual expense of the harbour service?—Such a return has been made the last five years.

2686. Does

2686. Does that account include the expense of the mooring-chains?—It does. Mr. *B. W. Scott.*

2687. Have you another account, showing the expense of the mooring-chains separated?—I have prepared an account, distinguishing the mooring-chain service from the harbour service. 13 July 1836.

2688. What is the amount of that?—The result of this account is, that the mooring-chain service, on the average of five years, is 1,828 *l.* 16 *s.* 6 *d.*, and the harbour service 4,286 *l.* 10 *s.* 3 *d.*, making 6,115 *l.* 6 *s.* 9 *d.*

2689. Does that include the buoys?—Yes.

[*The Witness delivered in the same.*]

STATEMENT of the EXPENSES of the MOORING-CHAIN SERVICE of the Port of *London*, as distinguished from the Harbour Service of the said Port, for the last Five Years, ending the 31st of December 1835.

——	1831.	1832.	1833.	1834.	1835.	Average.
	£. s. d.	£. s. d.	£. s. d.	£ s. d.	£. s. d.	£. s. d.
Providing and repairing mooring-chains, buoys, &c.	357 15 2	894 1 –	338 19 10	276 2 –	525 1 10	
Wages and expenses in repairing, altering and relaying moorings	800 – –	500 – –	778 7 –	650 – –	1,250 – –	
Expense of mooring-chain lighter	- - -	- - -	- - -	- - -	570 – –	
Trinity-house, for excavations, &c. in laying down moorings	178 17 –	64 13 9	45 5 9	105 13 9	81 10 9	
Landing, wharfage and warehousing of stores	159 12 6	60 19 3	14 13 –	13 4 –	10 15 –	
Repairs of boats, providing paint, stationery, &c.	17 10 6	24 18 6	23 5 4	25 18 8	26 18 1	
Superintendent of mooring-chains allowance	250 – –	250 – –	250 – –	300 – –	300 – –	
	1,763 15 9	1,794 12 6	1,450 10 11	1,370 18 5	2,764 5 8	1,828 16 6
Expenses of harbour service	4,291 9 11	4,545 10 3	4,076 18 3	4,128 2 5	4,390 10 2	4,286 10 3
£.	6,055 5 1	6,340 2 9	5,527 9 2	5,499 – 10	7,154 15 10	6,115 6 9

Chamberlain's Office, 24 June 1836. *B. W. Scott.*

2690. Have the port committee at all times been anxious to diminish the expense of the harbour service?—Yes, I believe they have always manifested an anxiety so to do, and have so done.

2691. Were you present at the conference between the Chancellor of the Exchequer and with the committee on the subject of the relinquishment by the Government of the interest on the sums advanced out of the Consolidated Fund for the improvement of the port of London?—That was one of the subjects under consideration in some of the deputations that took place from the port committee at that period, and I believe that such relinquishment was made at the suggestion of the port committee.

2692. Did the Government in consequence of such application consent to give up the interest?—Yes, I believe they did.

2693. Had the sale of the City Canal, which took place at that time, any connexion with the relinquishment of the interest by Government?—I am not aware that it had. I believe that the money paid for the City Canal was irrespective of any relinquishment of that kind, and, to the best of my remembrance, took place after.

2694. Was the money paid for the City Canal paid by the city fund in part discharge of the principal?—I think so; but I have no means of ascertaining that.

2695. Mr. *Angerstein.*] How far do the towing-paths extend which are under the jurisdiction of the city of London?—From London to above Staines Bridge; that is the jurisdiction of the corporation of London, under the Acts of Parliament.

Mr. *Thomas Forrest*, called in; and Examined.

2696. Mr. Alderman *Wood.*] ARE you a shipowner?—Yes, I am. Mr. *T. Forrest.*

2697. Have you been in the merchant service?—Yes.

2698. As captain?—Yes.

Mr. *T. Forrest.*
13 July 1836.

2699. Are you acquainted with the navigation of the Thames?—Yes, I am tolerably well acquainted with it. I have not been in practice lately, but I still know it.

2700. You have not been for some time in the service?—No, I have not been to sea lately.

2701. Mr. *Warburton.*] Are you a ship-owner still?—Yes.

2702. How long is it since you were in the sea service?—Perhaps I have not been to sea for 20 years; but I have been up and down the river notwithstanding.

2703. Mr. Alderman *Wood.*] Have you navigated ships of considerable burthen?—Yes, I have navigated ships of 70 feet burthen, and I brought them up myself.

2704. Is the Pool as clear as it was when you navigated a ship?—I think it is clearer now than it was some years ago in the Pool.

2705. Mr. *Angerstein.*] To what do you attribute that?—I presume to keeping the ships lower down till the others are cleared.

2706. Have the docks anything to do with it?—Yes, they have certainly. I recollect very well before the West India Docks were made.

2707. Mr. Alderman *Wood.*] What do you think about keeping a space of 300 feet clear; do you think that it can be kept?—I think it can be kept somewhere near upon that; the different gales of wind and tides will disturb the ships a few feet; but I think it may be kept to something near that.

2708. What is your opinion with regard to collier docks; have you ever paid any attention to that; do you think that it would be advisable or otherwise?—I do not know; I conceive that there would be many objections from the shipowners and the coal-buyers. I have no connexion with coals, and therefore it does not concern me, but it would take the coal-buyers more time.

2709. Mr. *Warburton.*] Are you not aware that the coal-buyers make use of the ships as floating warehouses at present?—I do not know how that may be.

2710. Would not the excuse of keeping the ships as floating warehouses for coals be removed if there were ready means by collier docks of unshipping the coals for some place?—If they had docks they must have some place to put them into.

Martis, 19° die Julii, 1836.

MEMBERS PRESENT.

Mr. Labouchere.	Mr. Angerstein.
Mr. Alderman Wood.	Mr. W. Williams.
Captain Alsager.	Mr. Warburton.
The Lord Mayor.	

MR. LABOUCHERE, IN THE CHAIR.

Mr. *James Bentley*, called in; and Examined.

Mr. *James Bentley.*
19 July 1836.

2711. The *Lord Mayor.*] YOU are a coal-factor?—I am.

2712. Have you been long engaged in that trade?—Upwards of quarter of a century.

2713. What, in your opinion, would be the effect of coal docks on the coal trade?—It would have the effect of increasing the price to the public.

2714. *Chairman.*] Have you made any calculation how much?—It will depend in a great measure on the plan that was adopted.

2715. The *Lord Mayor.*] Can you give us any idea of what would be the increase of price to the consumer?—I should think at least 1 *s.* per ton, and probably 2 *s.*

2716. *Chairman.*] You have never made any correct calculation?—I have not.

2717. Then it is rather guess-work?—It is from the best information I possess.

2718. The *Lord Mayor.*] Would the delivery of colliers in a coal dock prevent in any respect what is called the regulation of the coal trade?—Not in the least.

2719. You

2719. You think not?—That is my opinion.

2720. Would the coals suffer in value by being landed previous to sale?—Decidedly, by being exposed to the weather. In the north it is usual to sell coals which have been long exposed to the weather at a reduction of price.

2721. State what that reduction is?—It would depend entirely upon the period the coal had been exposed.

2722. Mr. *Angerstein.*] They are seldom exposed more than six months?—Rarely more than that time.

2723. In what proportion would they be injured, supposing they were exposed for six months?—Some coals I have no doubt would be injured to the extent of from 1*s.* to 2*s.* per ton, or from 5 to 10 per cent.

2724. *Chairman.*] Do you express that opinion from that reduction in value having taken place when coals have been exposed to the weather, and you have had the means of observation?—Not where I have had the means of observation, but from my knowledge that parties in the north make allowances upon coals which have been so exposed.

2725. Mr. *Warburton.*] What description of coal is most liable to injury in that way; that which contains pyritous matter?—Yes.

2726. Mr. *Angerstein.*] You consider that they are best when they first come out of the pit?—Undoubtedly.

2727. The *Lord Mayor.*] Are you of opinion that the present mode of the delivery of the coals from the wharf to the consumer is the best which can be adopted?—I am scarcely competent to give an opinion, not having considered the subject; there probably might be some improvement.

2728. What is the mode of delivery out of the ships into the lighters?—The proceeding is in the same way as has been for years, by means of whippers.

2729. Do you consider that practice a good one?—That practice is considered the best at present; probably the power of steam may at some future period make an alteration in the mode.

2730. The committee of the coal-merchants appoint the meters or weighers?—The committee of factors and buyers do.

2731. Is that committee an irresponsible body?—That committee is responsible to the parties by whom they are chosen.

2732. *Chairman.*] Who are those parties?—The committee consists of nine factors and nine buyers, chosen respectively by each branch of the trade, factors and buyers.

2733. Mr. *Angerstein.*] For what time are they chosen?—They are annually elected.

2734. Do they usually re-elect the same individuals?—Among the factors it is a rule that a certain number shall go out every year.

2735. The *Lord Mayor.*] Are you a member of that committee?—I am.

2736. Do you not take security for the good behaviour of the parties appointed?—The written declaration of the meter.

2737. What security?—In the first place, no person can be admitted as a candidate without being recommended by five persons connected with the trade, who know him to be a respectable, steady and industrious man; the business then comes before the committee, and, if chosen, he signs a declaration that he will not deal in certain articles which shall in any way tend to interfere in his doing justice in the delivery of coals, and that he will at all times conform to the regulations that are laid down for his guidance.

2738. Mr. *Warburton.*] Do you call that taking a security; that is merely a personal declaration that he will do so and so?—It is the only security the committee considered necessary, and which has been found to work well, as in case of misconduct he would be punished by suspension or discharged.

2739. *Chairman.*] There is no money security?—There is not.

2740. Mr. *Angerstein.*] What are the articles which he is precluded from dealing in?—Coals, spirits, wine and beer.

2741. The *Lord Mayor.*] You take no pecuniary security whatever?—No, it has not been considered needful.

2742. *Chairman.*] Is there any pecuniary trust?—None whatever; they merely go down and weigh so many tons of coals, for which they give certificates, and make their return to the office, where the accounts are recorded.

2743. The *Lord Mayor.*] Then you require no other security than that they shall

Mr. *James Bentley.*

19 July 1836.

shall do justice between party and party, and conduct themselves properly, and be of previous good character?—No other. The attention of a sub-committee, of six members of the general committee, is particularly drawn to the duty of the meters, who go down at certain periods to see that the men discharge their duty faithfully, and that the weights are in proper order.

2744. What number of weighers have you?—One hundred and fifty.

2745. Are there a sufficient number to meet the demand?—We have considered them quite equal to what the consumption required, inasmuch as during a portion of the year we have been obliged to remunerate them when they were unemployed, and were there a greater number the buyers could not purchase to employ them.

2746. Are the persons who buy the coals obliged to employ the meters appointed by the committee?—Certainly not; I, as a factor, sell coals to be delivered without the intervention of any meter whatever.

2747. Are you of opinion there is ample room in the river Thames for the purposes of the coal trade at the present time?—I am, decidedly so.

2748. Have you turned your attention to that part of the river now unoccupied, opposite Deptford?—It has not had my particular attention; I do not go much on the river.

2479. Are you decidedly of opinion that if the colliers were obliged to go into docks to be discharged that there would be an increase to the consumer of something like 1 *s.* a ton?—That is my opinion, at the least.

2750. You are not at all connected with shipping?—Yes, I am, a little.

2751. Have you had any colliers?—I have taken some small shares at times, but nothing extensive.

2752. Is it within your knowledge that any serious damage arises to ships in the river Thames from lying in the Pool in the way they do now?—I never heard of them experiencing much; ships have occasionally got a little damage, but since the establishment of our system, in the sale by rotation, I believe they receive much less.

2753. From your experience as a coal-factor, if it had been stated that upon an average colliers frequenting the Pool sustained damage to the amount of 4 *l.* or 5 *l.* on each voyage, is that correct?—I should say not, considering the number of colliers which enter the port of London.

2754. Mr. *Warburton.*] Are the ships insured in ship-clubs?—They are.

2755. Do the ship-clubs make good any small damage, or is the damage required to amount to so much per cent., after the usual regulations of Lloyd's or the insurance companies?—In some of them they make good to a smaller extent than they do in others.

2756. Both at Lloyd's and the insurance companies and the ship-clubs, if the damage falls below a certain amount, it is not made good to the shipowners?—No, it is not.

2757. Then the amount of that small injury to which ships are liable when lying in the port of London would not be made good by any of those various insurance companies or clubs?—It would not.

2758. Though you do not rate the average damage each voyage 4 *l.* or 5 *l.*, do you not think a ship frequenting the Pool regularly and lying there would find the damage received while lying there amount to something considerable?—I cannot think that it would amount to anything near what has been stated, and not near so much as would be incurred by going into dock; there were 7,868 ships delivered last year, which at 5 *l.* would be 39,340 *l.*; a large amount for damage.

2759. Have you access to the books of the colliers frequenting the Pool, so as to know what their actual damage really was?—I have not.

2760. *Chairman.*] Have you had any other means of forming a correct opinion of what has been the fact in that respect?—No, I have not.

2761. Mr. *Angerstein.*] It has been stated that a good deal of coal is spilt in clearing the coal ships in the delivery; have you been able to form any idea of the coal which is spilt?—I have never heard a complaint of coal being spilt; it is reasonable to suppose that some pieces may go over the sides.

2762. What quantity is lost from that cause in the course of 12 months upon the 7,800 ships that you have been mentioning; have you been able to form any idea?—No, I have not; the quantity must be trivial.

2763. The *Lord Mayor.*] If it has been stated that from 5,000 to 6,000 colliers discharge

discharge in the Pool annually, and sustain damage of 4 *l.* to 5 *l.* on each voyage, are you of opinion that that is not correct?—It cannot be correct. Mr. *James Bentley.* 19 July 1836.

2764. Have you gone through the accounts of any vessels?—My attention has not been drawn to them.

2765. Mr. *Angerstein.*] With regard to your own ships, do you employ the same individuals in their repairs?—I have no ships which I manage; I could not give the attention requisite to manage them, to get any profit.

Mr. *Peter Davey*, junior, called in; and Examined.

2766. The *Lord Mayor.*] WHERE do you reside?—At Old Barge-house, near Blackfriar's Bridge. Mr. *P. Davey*, jun.

2767. Are you a coal-merchant?—I am a coal-merchant.

2768. Will you have the goodness to state to the Committee whether you suffer any serious loss from the present mode of delivering coals from the ships to the lighters?—No, I do not think we suffer any considerable loss.

2769. Are you subject to any extensive pilferage from the coals of barges off the wharf, prior to the delivery to the consumer?—I think not; in fact the regulations of the Thames police have been so good during the last few years, that there has scarcely been any pilfering on the Thames.

2770. Mr. *Angerstein.*] Are the charges very heavy for the police?—We pay no charge; I do not know exactly from whence the fund arises.

2771. Then there is no special charge imposed on the property on the river?—No.

2772. Does it come from the general police?—I suppose so.

2773. The *Lord Mayor.*] Will you have the goodness to state to the Committee what your opinion would be of the increase or otherwise of the price of coals to the consumer if colliers were obliged to be discharged in collier docks?—Of course much of the increased expense would depend upon the charge per ton for the dock rate; I think the expense might be fairly put at from 18 *d.* to 2 *s.* per ton; or say from 7 ½ to 10 per cent. on the cost price of the commodity.

2774. Mr. *Warburton.*] What do you mean by the cost price?—The market price, including freight.

2775. The freight and the charges of the vessel?—Yes.

2776. The *Lord Mayor.*] Are you of opinion that if coals were delivered from the dock to a depôt, and from thence to lighters, for the purpose of distribution to the consumers, that they would be deteriorated in quality?—Very considerably; and in that case there would be a still further charge. I am supposing when I state from 18 *d.* to 2 *s.* a ton that the coals are delivered in the dock from the ship into a lighter; but there would be a still further increase in the expense if the coals were delivered from the ship to a depôt, and from the depôt into a lighter; coals are a very bulky article, and every movement increases the expense more than those who are not acquainted with the trade can possibly calculate on.

2777. Besides deteriorating them in quality, would it not tend also very much to burthen the coal-merchant with a large quantity of small coal, which he would have a difficulty in getting rid of?—Unquestionably.

2778. Mr. *Warburton.*] Is there any difficulty in getting rid of small coal?—Very great indeed.

2779. Are not many coals screened after they come to London now?—There is much difficulty in getting coals sufficiently large for the consumers, and I should say that a very large quantity of the best coals now sent to London are screened before they are sent to the consumer, and the small coal is sold at a very low price indeed.

2780. Is there not a considerable demand for small coal for the lime-burners and brick-makers?—The demand varies; occasionally there is a very good demand for it, at a low price, but frequently we are almost unable to sell it at any price; for instance, the very best coals, for which we pay 21 *s.*, the small part of it we should very gladly sell at from 12 *s.* to 14 *s.*

2781. Mr. *Angerstein.*] When screened?—Yes, when screened.

2782. The *Lord Mayor.*] What is your opinion, if colliers were obliged to go into dock, with reference to the Pool?—I think the Pool would then be occupied by other ships; probably if those ships were of different trades, some corn ships, some timber ships, and some with other cargoes, it might produce as much inconvenience in the Pool as now, where it is exclusively confined to one trade, and those moored with a regular system.

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2783. Mr. *Angerstein.*] You mean it would induce ships not to go into the dock?—Yes; if you take the colliers out of the Pool, and leave a space from Ratcliffe across to Rotherhithe, (which we call the Pool) in that case various ships would avoid going into docks, and would occupy that space.

2784. The *Lord Mayor.*] Does the present regulation of selling a certain quantity of coal ships on each market-day tend to relieve the Pool?—Certainly.

2785. Do you man your barges with one or two men?—Large barges with two men.

2786. What burden?—If a barge exceeds 35 or 40 tons we put two men; for less one man; but much depends upon the state of the weather, and whether it is winter or summer.

2787. Are you at all acquainted with shipping in the north?—I have been a considerable shipowner; I am very little engaged in it now.

2788. How recently is it since you have been engaged in it?—Not extensively within the last nine or ten years.

2789. During that time, did the colliers suffer any material damage from lying in the Pool?—No, they scarcely had any damage.

2790. If it has been stated that the ships, on an average, sustained damage to the extent of 4 *l.* or 5 *l.* each voyage by lying in the Pool, are you of opinion that that is an erroneous statement?—I should say, from my own knowledge, that statement is not correct.

2791. Mr. *Warburton.*] What do you rate the average damage of the ships frequenting the Pool at?—It is a very rare thing that you hear of any accident.

2792. I am speaking of small damage?—I am constantly in communication with the masters of colliers, and if any accident to the amount of 2 *l.* or 3 *l.* occurs it is generally mentioned, and I should probably hear of it.

2793. Then, according to you, there is no damage at all?—Very little indeed.

2794. What will it amount to; a farthing per ton per year?—I should say, certainly not a farthing per ton per year.

2795. *Chairman.*] Is it a point to which your attention has been turned?—Certainly not.

2796. The *Lord Mayor.*] During the time you were a shipowner you never experienced it?—I do not say we never had any accident, but it was very seldom.

2797. Mr. *Warburton.*] Do you give your opinion from having actually looked into the ship's accounts, and having added up the damage, and seeing how much per cent. it amounts to, or do you give it as an opinion, very loosely formed, without accurately taking any data?—I never made any calculation how much per cent. the damage in the Pool amounts to; I merely mention it from my own knowledge that accidents seldom occur.

2798. The *Lord Mayor.*] Has it occurred, in the course of your experience when a shipowner, that the damage to your ships was to the extent of 4 *l.* or 5 *l.* each voyage in the Pool?—Certainly not to that extent; damage has occasionally arisen during severe frosts from the ice; with that exception, damage seldom arises.

2799. Mr. *Angerstein.*] Are the injuries that the ships receive repaired in London, or at other ports where they are destined?—Generally by their own carpenter.

2800. Do they all have a carpenter?—Yes, almost every collier carries a carpenter.

2801. And the materials essential for the repairs?—Yes; every ship above 150 tons generally carries a carpenter and materials.

2802. Mr. Alderman *Wood.*] I suppose it is but little expense, merely the labour of the carpenter?—Merely the labour of the carpenter and the materials.

2803. The *Lord Mayor.*] Have you any recent knowledge with respect to the state of the Pool?—I am very often in the Pool.

2804. What is the state of the Pool now, as compared with what it was a few years since?—I should say the Lower Pool is much better.

2805. What is the Upper Pool?—That is chiefly occupied by corn vessels; I have not had so much personal experience with respect to that, but I should say there are more obstructions in the Upper Pool than the Lower Pool.

2806. *Chairman.*] Do you know whether the damage below 5 *l.* which is done to ships in the Pool is covered by the insurances of the companies or clubs?—Certainly

Certainly not; I think I may say that no club ever pays so low a sum as 5 *l.*; the insurance clubs are governed by the same law as insurances in general. Mr. *P. Davey*, jun. 19 July 1836.

2807. Mr. *Angerstein.*] Are you aware of any alteration having taken place with regard to the regulation of the ships in the Pool within a short period?—A great deal of pains has been taken by parties to moor the ships in the Lower Pool to prevent obstructions; certainly they are now moored in such a way as that there are less obstructions than there used to be.

2808. Within what period?—The last two years.

2809. You have not observed any particular change within the last three months?—I think not.

Mr. *George Smith*, called in; and Examined.

2810. The *Lord Mayor.*] WHERE do you reside?—I carry on business at St. Mary Hill. Mr. *George Smith.*

2811. What business?—A coal-factor.

2812. Are you a shipowner?—Yes.

2813. Are you the managing owner?—No, I am not.

2814. Can you inform the Committee whether the vessels receive any serious damage from their lying in the Pool?—No, they do not.

2815. Mr. *Warburton.*] Do they receive any small damage?—They do not receive any particular damage that I am aware of.

2816. Though you have had ships for three or four years that have been frequenting the Pool, there has been no small accident which you have had to pay for in the ship's account?—There naturally would be some, though not of any consequence.

2817. What do you call of consequence?—I do not think it would average 2 *l.* a voyage from lying in the Pool.

2818. *Chairman.*] You say you are not the managing owner; have you or not the means of knowing accurately whether it is or not the case that some accidents do happen to ships in the Pool?—Yes; I have had the ship's accounts put into my hands, and I see no particular charge for anything of that kind.

2819. Mr. *Warburton.*] You say that you have had to pay for small damage for ships lying in the Pool, and that you have ascertained on an average it would be not more than 1 *l.* a voyage?—I do not think it can average more than 2 *l.* a voyage.

2820. The *Lord Mayor.*] Are you conversant with the navigation of the river and the state of the Pool?—I have been in the habit of being up and down the river very much; I have been continually on the river.

2821. What is the state of the Pool?—It is better of late than it used to be formerly.

2822. Mr. *Angerstein.*] Will you state the period at which it is better?—I think within the last three or four years it has improved.

2823. The *Lord Mayor.*] Do you find that your ships are at all obstructed in navigating the Pool?—I do not hear of any complaint of that kind by the captains.

2824. Mr. *Warburton.*] You are colliers?—We are large shipowners in other trades as well.

2825. The *Lord Mayor.*] Are you of opinion that if the harbour-masters had more authority, and if the penalties were levied on the captains of vessels as well as the shipowners, it would be productive of benefit?—I think if the captains were the sole responsible persons it would be much better.

2826. Are you of opinion that the present mode of receiving colliers in the port of London can be improved?—I do not see any way in which it can be improved.

2827. Do you think the substitution of collier docks would be desirable?—I do not; I do not think that any further tax upon the article would be desirable.

2828. Mr. *Warburton.*] Would it of necessity cause a further tax upon the article?—Yes; the expense of course must be paid, and it would be much more than upon ships delivering in the Pool.

2829. How much more?—I have not the means of ascertaining; the projector of one of the docks showed me a plan for my opinion thereon, and I asked what charge it was intended to make upon coals, and he told me 1 *s.* a ton.

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2830. Mr. *Angerstein.*] What plan of the docks do you allude to?—On the north side of the river, in the neighbourhood of the Commercial-road.

2831. Mr. *Warburton.*] Do they propose to take the coals out of the hold of the ships at a less cost than they are now taken out in the stream?—He did not say so.

2832. The *Lord Mayor.*] Are you not of opinion that the ships would be more liable to damage in going into dock, than according to the present mode of discharging in the stream?—I think they would be quite as liable to damage.

2833. Mr. *Warburton.*] Do you mean to say you, being a large shipowner, do not find that your ships sustain less damage by lying in the dock, say 20 ships in the course of a year, than if the same ships lie and deliver their cargoes in the stream?—Not for a short time, I do not think they would.

2834. The *Lord Mayor.*] Is there not necessarily a great wear and tear of ropes and hawsers by taking the ships into dock, which you are not liable to by the vessel lying in the stream?—The wear and tear of small ropes would be greater.

2835. Mr. Alderman *Wood.*] Would there not be a difficulty in bad weather in getting them in and out of the docks?—There would be a difficulty in getting them in or out when it blew hard, particularly when there was a large arrival after a stoppage from contrary winds or any other cause, and also in case of ice.

2836. How does that greater consumption of small ropes arise by the ship being in dock?—It arises from their hauling them into dock from the river, and the same thing will apply to their being hauled out.

2837. The *Lord Mayor.*] Are you of opinion that colliery docks made without a compulsory clause would be useless?—Yes; I do not think the ships would go into them.

2838. Mr. *Warburton.*] Not voluntarily?—Not voluntarily.

2839. The *Lord Mayor.*] How are the meters now appointed for weighing coals on board ships?—They are appointed by a committee, consisting of 18.

2840. Is it the interest of all parties concerned in the coal trade that a sufficient number of persons should be appointed as meters?—Yes.

2841. And you think there are a sufficient number appointed?—There are a sufficient number appointed for all the parties who apply to the committee for them.

2842. Mr. *Angerstein.*] Is it not a considerable place of trust?—Yes.

2843. Do they receive high wages for their duty?—The average earning is about 118 *l.* a year.

2844. Are they paid by work, or so much per year?—They are paid for the work they do, 2 *d.* per ton.

2845. The average is 118 *l.* a year?—Yes.

2846. The *Lord Mayor.*] According to one of the regulations of the committee, do you consider any unnecessary delay takes place in the discharge of the vessels?—No, I do not.

2847. Is it a common thing for demurrage to be charged by the shipowner?—It is not a very common thing; it occurs occasionally.

2848. Mr. *Warburton.*] If the shipowner charges demurrage, is he likely to be employed again by the party to whom he charges it?—Quite as likely.

Mr. *William Horne*, called in; and Examined.

Mr. *William Horne.*

2849. The *Lord Mayor.*] WHAT is your avocation?—A coal-merchant.

2850. Are you at all connected with shipping?—I am not.

2851. What is your opinion upon the establishment of collier docks?—I think it would cause an increased charge to the public.

2852. To what extent?—That would depend on what the dock dues would be. I am informed by persons who are promoting collier docks that they could not be maintained at a less rate than 1 *s.* per ton; and I think that the other expenses would be from 6 *d.* to 1 *s.*

2853. The *Lord Mayor.*] That would be additional?—Yes, for the detention of barges.

2854. Mr. *Angerstein.*] So that the whole additional charge would be from 1 *s.* 6 *d.* to 2 *s.*, taking the dock dues at 1 *s.*?—Yes.

2855. The *Lord Mayor.*] What number of lighters do you employ?—Thirty-five.

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2856. Upon an average, how many of them are laden lying at your wharf at one time?—About 12.

2857. Do you suffer serious loss, or at all, by peculation and pilfering?—Very little; it is absolutely necessary to keep coals in barges; they may have to be sent to other places on the water-side, and if they were landed there would be a very heavy expense upon them.

2858. Mr. *Warburton.*] You sometimes sell the whole barge load?—Frequently.

2859. Your object is to selling it before it is landed?—Certainly; coals are at so low a price that we cannot land them or re-ship them but at an expense of 5 per cent. on their value.

2860. Suppose you landed the coals at a depôt, would it increase 5 per cent., instead of taking them by barges to the wharfs?—Yes; I should have the same expense of putting them in waggons out of the depôt as I have now from the barges.

2861. You do not contemplate if there were coal depôts that it would be compulsory upon them to land them at the depôts?—Not at all.

2862. You would be able to send them by barges or take them out?—Yes.

2863. Mr. *Angerstein.*] Does not coal suffer from exposure?—Very much.

2864. It has been stated that more injury would be suffered by coals from the depôt than they now do; does not the coal suffer quite as much by lying in barges as being on land?—No, for there is a much smaller surface exposed to the atmosphere in barges than when they are lying on land, and we do not keep them long in barges.

2865. Mr. *Warburton.*] The more pyritous matter coal contains the more it is injured?—Yes.

2866. It heats and breaks down into small?—Yes, it slakes like lime; more in some particular quality of coal than others.

2867. Mr. *Angerstein.*] You have stated, I think, that there is a larger surface of coal exposed to the weather in lying on land than lying in craft?—Yes, I have.

2868. If you were to put coals in a warehouse, and cover them up, are they still deteriorated by the atmosphere?—Yes, very much.

2869. Mr. *Warburton.*] Have you ever known them take fire in large heaps?—Yes, I have; more particularly when they have been in a wet state.

2870. Mr. Alderman *Wood.*] You do not know what injury is done to the vessels?—I do not.

2871. The *Lord Mayor.*] From your experience as a coal-merchant, if it has been stated that the extent of the pilferage of coals from lighters is very considerable, and of daily practice, would you say that is correct?—Certainly not. I beg leave to say that I am treasurer of a society of coal-merchants, who are united for mutual protection, and the society offer a reward of two guineas to the officer upon the conviction of any person stealing coals, when the boat is burnt under the Bum-boat Act; and the rewards I pay are so few, that they bear no comparison to what they used to be some years ago.

2872. Mr. *Warburton.*]—It is not necessary to have a society for this express purpose?—No; but we consider it is an inducement to the officers to be more vigilant.

2873. The *Lord Mayor.*] Have you any other information to give to the Committee?—No; but the trade conceive that they have been unjustly accused by a principal evidence, with respect to the appointment and management of coal meters, and we are anxious to contradict it.

2874. Mr. Alderman *Wood.*] Are not the meters employed under a committee, consisting of factors and merchants?—Yes; half factors and half merchants.

2875. Are you on that committee?—I am.

2876. With respect to the execution of their work and their attention to their duties, have you had any specific charge to make against any one of them since you have been on the committee?—Since they were first established one has been discharged, and two or three have been punished for neglect of duty. I think that, taking them as a body, they are very good officers; we require that they shall be respectable men, and recommended by at least five members of the trade before they can be eligible to be meters.

2877-78. You say there are three or four instances in which men may have been punished for neglect of duty; out of what number?—Out of 150, in the space of four or five years.

Mr. *David Smith.*

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Mr. *David Smith,* called in; and Examined.

2879. The *Lord Mayor.*] ARE you superintendent and dock-master of the Surrey Docks?—I am.

2880. You were examined before the Committee on the 18th of June last?—I was.

2881. Prior to your examination had you any communication with respect to the nature of your evidence with Sir John Hall?—I remember at the end of May receiving a note from Sir John Hall, stating that I was to be examined on the Friday following, and he requested that I would give him a call before I went up, and I did so.

2882. What passed at that interview?—The converstion turned upon the obstructions and impediments in the river Thames, and also on the inefficient manner the harbour service was performed in his, Sir John Hall's, opinion. I will state exactly the conversation, if you will allow me. I gave it as my opinion that the harbour-master could not either command order or maintain a clear passage through the Pool on the present system; and that the principle, instead of the men, was to be blamed; because while there are so many colliers allowed to come into the Pool of the river, and lie in crowded tiers and at insecure moorings in the stream of the Pool, it is impossible for men to maintain a clear and safe passage at all times. Sir John said, "But it certainly is the imperative duty of the harbour-masters to point out those obstructions to the proper authorities; for that the evil does exist, and ought to be remedied, is self-apparent to everybody." I said, "Certainly, that was the fact: the evil did exist, and the responsible officers were the parties who ought to point it out to the proper authorities." Sir John said, "That is all I contend for, and unless evidence is given to that effect, or you are prepared with evidence to that effect, it will be of no use;" and he concluded by saying, "I think our case is concluded, and we do not mean to call any further evidence:" therefore, of course, I expected I was not to be called. I then stated to Sir John the only effectual remedy for all this mischief would be removing the colliers out of the Pool of the river; no other effectual mode can be applied. He said, "Although we do not mean to call any further evidence, the Committee are empowered to call any person as to any fact connected with the inquiry." I think that is the substance of what passed between Sir John Hall and myself, as far as I remember.

2883. Mr. *Warburton.*] From anything that passed between you and Sir John Hall, did you collect that it was at all the desire of Sir John Hall that you should state any opinion to the Committee that was not your real opinion?—Most certainly not.

2884. Nor did he wish you to express any opinion entertained by him, but only your own opinion on the subject?—Unquestionably; he only wanted what he considered facts stated.

2885. The *Lord Mayor.*] Did not Sir John Hall in that conversation state that unless you were prepared to give to the Committee evidence of the inefficient conduct of the harbour-masters, you had better not go before the Committee at all?—I believe I have stated the very words; viz. "unless you are prepared with evidence," &c. &c.

2886. I ask you that plain question?—I do not think he stated that. Sir John blames the men, I blame the system.

2887. Have you never stated that such a conversation passed between you and Sir John Hall?—I stated the conversation which passed between me and Sir John to the harbour-master, and I do not think that the harbour-master should have made use of that conversation. I do not think myself well used. On that occasion I stated to him in so many words to the effect which I have stated now.

2888. You consider yourself ill used by the harbour-master having spoken of the conversation that passed between you and Sir John Hall?—I think any gentleman here would, in the same circumstances, prior to an examination on the subject.

2889. Mr. *Angerstein.*] What is your opinion on the conduct of the harbour-masters?—My opinion is, that as far as they possibly can, they endeavour to do their duty; but it is impossible, in the present state of the river, to do their duty satisfactorily; they cannot command order in the Pool under the present system, and I defy them to do so.

2890. Does that depend upon the deficiency in their number?—It depends upon the crowded state of the Pool. I think their number quite sufficient.

2891. The

2891. The *Lord Mayor.*] From your experience, is not this the fact, that such is the increased trade in the port of London, that there is not accommodation enough in the river Thames for that increased trade?—That is my decided opinion, and I have given that evidence on a former examination. I have known the river for upwards of 40 years; my situation is nearly in the centre of the Pool, and all the obstructions of the Pool take place almost under my own observation; and knowing the difficulties the harbour-masters have to contend with, when fleets of colliers arrive, I have frequently been obliged to put up with great inconvenience from the colliers, without making it subject of complaint. I know they could not immediately remove the cause, owing to the great increase of shipping in the port of London; and the coal trade especially is going on to increase, and will increase, and you must resort to the remedy of removing the colliers out of the stream at last.

2892. Do you mean the remedy of collier docks?—I have no doubt but that you will be compelled to resort to that remedy.

2893. Have you the means of knowing the increase in the present year over the corresponding period of last year?—I have seen the return of the colliers, and the increase is very great, upwards of 500 ships.

2894. Mr. Alderman *Wood.*] Do you witness the towing up of large vessels?—Very often.

2895. Mr. *Angerstein.*] Have you any other communication to make?—Not any. I should state, with respect to the conduct of Sir John Hall, the harbour service has been better performed since he made all the stir about it, and I think we are much indebted to him for the trouble he has taken.

2896. Mr. Alderman *Wood.*] Did you attend a meeting at Rotherhithe, and which Sir John Hall called?—I am not aware that he called a meeting there.

2897. Did you attend any meeting there?—I attended a meeting of the parishioners of Rotherhithe and Bermondsey, at which, if I remember right, there was a petition sent in from Sir John Hall; I have but little recollection what the purport of that petition was, but I know it was not received.

2898. You mean not well received?—Not well received.

2899. Nor was it carried?—No.

2900. The *Lord Mayor.*] I think you said you have frequently seen large vessels towed up the river?—Very often.

2901. Is that by steamers at the head?—Different ways; sometimes the steamer is lashed on the side, sometimes the steamer goes ahead, and sometimes a steamer on each side; it is a great accommodation; I do not know what we should do without them, in bringing large ships into and through the Pool of the river.

2902. Mr. Alderman *Wood.*] Is there not less injury to the river by towing them directly up, than there would be otherwise from their drifting with the tide?—Unquestionably; they cannot bring very large vessels up with safety without the help of steamers.

2903. Is it not impossible to bring a vessel of 600 tons up to the London or St. Katherine's Docks without the aid of a steamer?—It is not impossible.

2904. But very difficult?—Yes, very difficult.

2905. Mr. *Angerstein.*] Are you aware what it depends upon the steamer being placed at the head or side of the ship?—It depends upon the state of the Pool of the river; if the pilot in coming up sees the Pool crowded, and he has a steamer on each side, he will in that case cast off one and put the other at the head, in order to take up as little room as possible; there is no other safe mode of conducting large ships through the Pool to the London and St. Katherine's Docks; and inasmuch as the most valuable commerce of the port is brought nearer to London by these docks, they ought to have proper accommodation, and that only can be effected by the help of steamers in the present state of the Pool.

2906. The *Lord Mayor.*] Is it not a cause of obstruction taking place in the river by large vessels being towed up by steamers lashed on each side of them?—Yes, to a certain extent, and it cannot be avoided; but suppose a vessel of 800 or 900 tons dropping up with the tide, and obliged to heave across at the entrance of the Pool, would it not immediately create an unavoidable impediment, which nothing could prevent, and might be attended with serious consequences? this is often prevented by the help of steamers.

2907. From your experience of 40 years on the river, are you of opinion that the harbour-masters have performed the duties of their office, under existing circumstances, to the best of their ability, with every desire to accommodate all

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parties coming into the port of London?—I am persuaded of the fact, and I know the difficulties they have to encounter.

2908. Mr. *Angerstein.*] Are you of opinion that if vessels of a certain tonnage were under an obligation to use one large steamer at the head, instead of two steamers at the sides, it would benefit the navigation of the river?—I cannot see how that would be a benefit; you must allow them to act according to the necessity of the case, and of wind and tide.

2909. Captain *Alsager.*] Is there any doubt, when a vessel has a steam-boat alongside, that she is much much more under the control of that steam-boat than when she has a steam-boat ahead?—That is perfectly correct; there can be no doubt of that.

2910. Mr. *Williams.*] Has not the harbour-master paid more attention during the last three months than during the last 15 or 18 months?—I am not aware that he has; during the present season of the year the river is generally clearer of shipping; it is at the fall of the year, and during the winter and spring months, that all the difficulties take place.

2911. Do you mean to say that during the last three months, as compared with the corresponding three months of last year, there has been no difference in the attention paid by the harbour-master?—I am not aware that there has; I think the harbour-master has done the best he could, under all the circumstances.

Mr. *Samuel Granger,* called in; and Examined.

Mr. *Samuel Granger.*

2912. The *Lord Mayor.*] DO you reside at Blackwall?—Not at present.

2913. Where do you reside?—At Blackheath.

2914. Are you a lighterman?—Yes.

2915. Are you the owner of a large number of craft?—A great many.

2916. Do you trade mostly with large craft to and from the East India Docks?—Yes.

2917. Are you frequently on the river?—Yes.

2918. Do you frequently pass through the Pool yourself?—Three or four times every week.

2919. Do you find any obstructions in the Pool?—Yes, frequently.

2920. Will you state the cause of the obstructions?—From the great number of the craft, and the great number of steam-boats.

2921. Does that arise from the introduction of steam navigation, and large vessels that are carried higher up the river than they were formerly?—It is the large steam-vessels that cause the danger to craft.

2922. Have you given any instructions to your people as to making a difference in the cargoes which you remove in consequence of the introduction of steam navigation?—I do frequently where there is a heavy cargo, such as iron, lead and steel. I have ordered my foreman not to put so much by 10 tons as we put before, in order to avoid accidents.

2923. Mr. *Warburton.*] Ten tons out of how much?—Out of 50.

2924. The *Lord Mayor.*] In consequence of the great increase of steam navigation you are obliged to carry in the proportion of one-fifth less?—Yes; I have given a general order never to take so much by 10 tons.

2925. Your wharf is near London Bridge?—Close to it.

2926. Do you find any inconvenience from large steamers frequenting that part of the river?—There are few large steamers come there.

2927. Are the steamers of that size which causes inconvenience to the wharfingers and lightermen?—Considerably so.

2928. Are you of opinion that it is desirable to make an arrangement that steam-boats of great burden shall not come in the Pool?—I am, decidedly.

2929. Mr. *Angerstein.*] Where should you recommend them to stop, supposing it depended upon yourself?—Anywhere out of the Pool.

2930. Describe where you think is the most convenient part?—Blackwall is the most convenient part.

2931. Would it not prevent a great inconvenience if steam-vessels were to be placed in a dock?—I am aware of no objection to their being placed in a dock.

2932. Suppose they were placed in the river opposite Blackwall, would not that constitute an obstruction in that part of the river where it would be most inconvenient, where there is a turn?—Yes, if they were to lie facing Blackwall; but I think

I think the space between Blackwall and the East India Docks would be a good place for them.

2933. Supposing all steam-boats were prevented coming up the Pool, what number do you calculate would lie at the point you have now described, upon an average?—I should think upwards of 30 of the largest steam-boats might lie there at the same time.

2934. Do you consider that that would be the average number that would lie there?—I think that number might lie there without any lying alongside the wharfs.

2935. Mr. *Williams.*] Supposing the steam-vessels were to remain in the place you state, would not that affect the property on both sides of the river in the upper part of it, near the bridge, most materially?—I am not aware of it at all.

2936. You are a wharfinger?—No, a lighterman.

2937. Mr. *Warburton.*] If you had a wharf where the great steam-boats were in the habit of discharging their passengers and unloading their cargoes, would it not be a great depreciation in the value of your property?—I think there would be a depreciation in the value of the property by the steam-boats not coming into the Pool.

2938. Mr. *Williams.*] Would it not occasion an additional expense to both the passengers and the persons who receive goods by steam-vessels if they remained in that part of the river you state?—I think not for goods or passengers. Some years ago, the managing director of the Old Margate Steam Company said they would prefer taking them free from London to Blackwall, and bring them from Blackwall to London again, instead of the expenses to which they were put for damages which were done against themselves, and damages which they had to pay for done against other vessels.

2939. Do you not think if steam-vessels were to come to your wharf, or any wharf in that neighbourhood, and discharge their cargo there, that the cost of the delivery of the goods would be much less than the delivery in that part of the river you have spoken of, and would avoid sending them by lighters?—The charge might be less coming there; but I think the risk they run coming up, and the damage they have to pay for, would more than compensate it.

2940. I am asking the question with regard to the public and the cost they would have to pay by having their goods conveyed from that part of the river, the difference between that and their going to the wharf direct?—It is a question I cannot answer; but I should think not, because from the West India Docks, when the ship goes in there, the cargoes are distributed by land, and that is very little nearer than Blackwall.

2941. Are you aware what has been actually paid for damage done to these vessels coming up the Pool?—I am not.

Mr. *Charles Rowland,* called in; and Examined.

2942. The *Lord Mayor.*] I BELIEVE you are one of the harbour-masters?—Yes.

2943. You were examined on a former occasion, and were then directed to prepare a detailed statement of the plan proposed by you for the mooring the colliers in the Pool and down the river?—Yes.

2944. Have you the plan here?—I have.

2945. Be so good as to put it in.

[*The plan was then put in, for which, see Appendix.*]

2946. Mr. *Warburton.*] Is that your plan, or the alteration of a former plan?—It is the alteration of a former plan.

2947. In what does the alteration consist?—In reducing the number of vessels in some tiers, and increasing them in others, and in laying down moorings generally throughout the whole of the collier tiers and down to Blackwall.

2948. The *Lord Mayor.*] Have you a copy of any register of the speed at which steam-vessels have recently plied on the river?—Agreeably to your Lordship's directions, persons have been employed to note down the speed of the steam-boats as they passed through the different appointed stations of the river; and these books contain the minutes of those men.

[*The Witness was directed to get an abstract of the books prepared by the next meeting of the Committee.*]

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2949. Is this plan delivered in made entirely from yourself, or from communications with others?—The plan for the general moorings for colliers originated entirely from my own ideas of the subject, and I have had communications with others of the advantage to the coal trade and the public, and the practicability of carrying such a plan into execution, and I have found them generally approve of it.

Lunæ, 25° die Julii, 1836.

MEMBERS PRESENT.

Mr. Labouchere.	Mr. Angerstein.
Mr. Alderman Wood.	Mr. Warburton.

MR. LABOUCHERE, IN THE CHAIR.

Mr. *Charles Hay*, called in; and Examined.

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2950. Mr. Alderman *Wood.*] YOU are master of the Watermen's Company?—I am.

2951. Have you been employed in the navigation of barges on the river?—Yes, I have.

2952. How many years?—Thirty-two years.

2953. *Chairman.*] What are the duties of the Watermen's Company?—To bind and make free, to license boats for carrying passengers to a certain number, and to grant numbers to lightermen and woodmongers.

2954. What do you mean by woodmongers?—Persons that are not free watermen, who think proper to carry their own goods, but not to work for hire.

2955. Do you interfere with the size and structure of the boats employed upon the river?—There is a scale laid down by the Watermen's Company in July 1827; all boats are licensed by that scale, unless they were built before that; we license them as near the scale as possible.

2956. Mr. *Warburton.*] Can you produce a copy of those regulations?—It is in our bye-laws.

2957. *Chairman.*] Are there officers of the company appointed to see that those regulations are not infringed?—There are two persons employed by the company, that have 100 *l.* a year each.

2958. How far does your jurisdiction extend?—It used to be formerly to Gravesend; it is now to Yantlett Creek.

2959. Since when?—Since 1827, since the company were incorporated.

2960. How far above the bridges?—To Windsor.

2961. Mr. *Warburton.*] What authority have you in the upper part of the river, as to the form of boats and so on?—The same authority as in all other parts.

2962. Do you exercise it?—If they come to us to be licensed.

2963. If persons ply upon the river for hire, do you interfere with the form of the boats?—Yes.

2964. Between Staines and Windsor?—Yes, just the same as any other part of the river.

2965. *Chairman.*] Are you quite independent of the navigation committee of the corporation of London?—Quite so; our people are sworn in by the corporation of London; they have the choice whether to swear us or not once a year.

2966. Mr. *Angerstein.*] What is the payment made for any one to belong to your company?—Three guineas; but there is a servitude of seven years required.

2967. Mr. *Warburton.*] Do they become free of the Watermen's Company by patrimony?—No, only by servitude; and we are very strict as to servitude, for we conceive they ought to be competent to navigate craft, or to carry His Majesty's subjects safely.

2968. Mr. Alderman *Wood.*] Must they be bound to navigate barges as well as boats?—No, there is no restriction.

2969. Mr. Alderman *Wood.*] Is the Watermen's Company one of the city companies?—No.

2970. *Chairman.*]

2970. *Chairman.*] Can you procure the bye-laws of the Watermen's Company for the Committee?—Undoubtedly.—[*The Witness was directed to produce them on the next meeting of the Committee.*]

2971. Mr. Alderman *Wood.*] Having been acquainted with the river so many years, you have navigated yourself upon it?—I worked for 21 years almost night and day myself, and used to pride myself upon it.

2972. In your opinion, what clear space should there be for the general navigation in the Pool?—I should say 200 feet; that would be quite sufficient for any purpose of navigation; it would be better than a mile; if you have too much room it would the sooner fill up, and there will not be water for large vessels to be navigated.

2973. Have you at all noticed the conduct generally of the harbour-masters, how they have done their duty in keeping the river clear?—Yes, I have.

2974. How have they done their duty?—Whenever I have applied to them, when vessels have been lying swinging about at anchor, they have always gone to set them to rights; but they have stated that it was quite optional with the vessels whether they would remove or not, for that they were obliged to give them 24 hours' notice.

2975. Mr. *Angerstein.*] Are you sure it is not 12 hours?—I think I am right.

2976. Mr. Alderman *Wood.*] Do you think they ought to be compelled to remove immediately?—Yes, I do; when the vessel is swinging at her anchor, she ought to be obliged to get out of the way immediately.

2977. Supposing the colliers were all removed out of the river, what do you think would be the effect?—I think the river would fill up very fast; there cannot be a greater proof than that between London and Blackfriars Bridges some thousand tons of soil have been removed for the purpose of railroad for concrete, and whenever they have taken it, it has filled up nearly as fast as they have taken it away. There is not water for a loaded barge of four feet between London and Blackfriars Bridges at or near low water, and to the eastward of London Bridge it is growing up in a similar way. There used to be a shoal that used to terminate opposite Barclay's brewhouse; it has now extended below London Bridge; it is now grown up under Fenning's Wharf. There used to be water for vessels to lie afloat, now they ground before half ebb; it is increasing; and I have no doubt, if the tiers were removed, it would be the same further down the river.

2978. Have you witnessed anything of that sort lower down towards the docks, towards Rotherhithe?—The same thing is going on there now, at the present time, only in a smaller degree; between the London Dock entrance, Wapping, and Church-stairs, it has grown up; the steam-boats used to come right down at all times of the tide, now they cannot go down till the tide flows half an hour: the foreign steamers and coasters loaded, I speak of.

2979. Mr. *Angerstein.*] Are shoals increasing between Battersea Bridge and Putney?—I cannot say; it is mostly at high water I go there.

2980. Mr. Alderman *Wood.*] You think if 300 feet were kept open instead of 200, it would be injurious as to stopping up the river?—I am sure it would, for ships of heavy draught of water; again, at Pelican-stairs, between the London Dock entrance and the Surrey Canal, where there is a great breadth of water, it is filling up; a short time ago a lighter grounded going down loaded belonging to Fresh Wharf; I suppose the craft does not draw above six or seven feet water.

2981. Mr. *Angerstein.*] Are you aware whether the banks have been raised at all between Battersea Bridge and Putney?—I cannot say; I know they were raised some time ago at Rotherhithe.

2982. Mr. Alderman *Wood.*] Have you observed at all the mode of conducting vessels or towing them up to St. Katherine's Dock?—Yes, I have.

2983. How is that done?—Frequently by steam-boats, one on each side; they come up through the Pool in a frightful way.

2984. What is the breadth of the three?—Nearly 60 feet, ship and steam-boats together.

2985. What is your opinion of the effect of that?—I think it is very bad; it is taking up too much of the river. I will give an instance: the last summer there was a lug-boat coming from Hanover-stairs, Rotherhithe, a large ship coming up to St. Katherine's Dock with one steam-boat on each side; the lug-boat did all it could to get out of the way, but they were so far over to the southward they picked them up and went athwart them; they immediately tried with their hand-spikes to get her clear, but they hurt the boat's sides and wash-streaks; the man called to them,

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and tried to shove the handspikes away; they struck him, and he began to do the same, and 14 or 15 jumped down and knocked the man about; he cried out murder, and the police rowed off in two boats and took them away; the man was most unmercifully treated.

2986. Is it your opinion that the St. Katherine's Dock is placed too high up the river?—For a large ship it certainly is; I think no one in their senses would think of putting a large ship up there; but they get them up wonderfully well.

2987. You think they are not much interrupted by the state of the river?—No, there never was such accommodation given as at the present time.

2988. *Chairman.*] Do you think there has been any great difference in the state of the river, and the attention paid to it recently?—I think it has been improved the last summer, decidedly; but before that there was plenty of room for the whole trade, and the ships that lay in the tiers, generally.

2989. To what do you attribute the increased care taken during the present summer?—The piece of work which has been made between the committee of the port of London and the steam-boat companies.

2990. You think there has been more attention paid by the harbour-masters of late?—I think so, decidedly.

2991. Mr. *Warburton.*] You say there was before that plenty of room; do you mean for towing up ships with their steam-boats, with a width of 60 feet?—Yes.

2992. You were complaining of the great width of 60 feet, which it takes to tow up a vessel with two steam-boats?—Yes, out of a width of 200 feet.

2993. You mean to say, that in a width of 200 feet, it is inconvenient that they should be permitted to tow up large ships to St. Katherine's Docks, with large steam-boats on each side?—Yes; it is not the mere working of vessels. It must be expected that schooners and other vessels will be moving, as well as those large vessels; they must meet with those difficulties as well as others.

2994. *Chairman.*] Has a greater space than 200 feet been kept clear the whole of the last summer?—I should think there was.

2995. Mr. Alderman *Wood.*] Suppose they were not to tow them up by tugs one on each side, abreast of the vessel, but in front of the vessel, the inconvenience would be improved very materially?—Very materially.

2996. Mr. *Warburton.*] Would they have the same power if they were before the vessel?—I think it is more convenient to the steam-boats than anything else.

2997. Cannot they work backwards as well as forwards, if they are abreast?—Yes, they can.

2998. Is not that of great importance?—It may be possibly at some time of great importance: when a ship is obliged to go athwart the tide, and they cannot draw her up by vessels running up before her, then it is necessary that the steam-boat should drop alongside.

2999. Would it be possible without the use of steam-boats to carry large vessels up so far as the St. Katherine's Docks, without greatly obstructing the river?—It is certainly inconvenient to have the steam-boats on each side towing of ships.

3000. Mr. Alderman *Wood.*] You are prevented taking two barges abreast?—Yes.

3001. What is the law for that?—The law is 40*s.* fine, and not less than 5*s.*

3002. Is that in your bye-laws?—Yes.

3003. That no two barges shall go alongside of each other?—Yes.

3004. How wide are two barges?—The outside is 17 feet, and two together would be 34 feet.

3005. They are prevented by law coming up together, while two steam-boats and a large ship, altogether 100 feet wide, can come up?—Sixty feet wide. I take the small steam-boats to be of the same width as one of our barges, though they may be wider, and very probably are.

3006. Mr. *Angerstein.*] Your bye-laws do not apply to ships, but to craft?—Yes, craft of all descriptions; and we are very particular in enforcing that regulation.

3007. Mr. Alderman *Wood.*] Because you think, by interrupting the navigation, they would do injury to other people?—Yes.

3008. Did you ever meet with many accidents from vessels doing injury to your barges, previous to the adoption of steam?—No, we have had but few accidents; very trifling.

3009. Have you known very many accidents happen to barges and craft in general, since the establishment of steam in the Pool?—Yes, numbers.

3010. Would you recommend that the speed should be regulated as to steam-navigation, when they come within six miles of London Bridge?—I should say that they ought to go four miles an hour against the tide, and six with it; at the present time they have five miles an hour allowed them, but the tide runs three miles an hour, resisting the steam-vessels; they take as much water when they go against the tide, which is going three miles, and they going five, it is eight, and the swell is tremendous. The City of Aberdeen steam-boat drowned a young man, a mason, off Globe-stairs, by the swell. There was an accident to a boat that was sunk by the swell of the Thames, Dublin steamer; she was not going more than five miles; there was 100*l.* given in the Court of King's Bench for injury to a female. Those large boats going at five miles an hour against the tide makes it eight; the swell they make is tremendous.

3011. Mr. *Warburton.*] Is it necessary occasionally, in order to get out of some obstruction or danger, that they should put on their full speed to have the advantage of it?—No, I never saw it with those vessels; it may be with the Gravesend small boats, but it is almost impossible for them to be in those circumstances; they are more likely to rush into danger than out of it; a vessel drawing 12 or 14 feet water never ought to put on more speed than that, within those limits.

3012. Mr. Alderman *Wood.*] Your company do not keep any account of accidents?—No; the last summer we have kept an account, but not before.

3013. Can you give any account of the number of accidents since you have kept it?—It shall be returned to the Committee.

3014. Mr. *Angerstein.*] Has the Watermen's Company recommended any alteration in the size of the boats you navigate, below London Bridge?—Yes, there was a scale laid before the Watermen's Company for the boats, which I conceive is quite large enough to carry any passengers.

3015. Has that been acted on?—Yes; we built a boat immediately for eight or for six.

3016. Mr. *Warburton.*] There is nothing to prevent the boats that navigate above bridge navigating below?—No.

3017. The wherries above bridge and below are of different dimensions?—Yes. The men say that they will not go so quick as the common boats; that the gentlemen will not go with them above bridge if they have large boats; but we refuse to license them unless they come within our scale.

3018. Is there a licence for the boats as well as the watermen?—Yes.

3019. What is the payment?—Only 1*s.*

3020. Mr. Alderman *Wood.*] Do you think that the watermen are in a situation that they could build boats?—I am sure that they could not.

3021. Mr. *Warburton.*] Twenty guineas is the price of a wherry, is not it?—Yes.

3022. Mr. Alderman *Wood.*] What would be the price of those larger boats?—There would not be much difference.

3023. Mr. *Angerstein.*] Would it not add much to the labour of the man?—I think it would; but he would get it in the wear of the boat.

2024. Mr. Alderman *Wood.*] Could he manage a boat of larger dimensions by himself?—Yes, decidedly.

3025. But he could not go so fast?—If he put six or eight people in it, he could go as quick as a small boat.

3026. Mr. *Angerstein.*] If he put more in it, the danger would be increased, as the gunwale of the boat would approach the surface of the water?—Yes.

3027. Mr. Alderman *Wood.*] In what way would you propose they should be able to get those large boats, if that was to be enforced?—I am sure I cannot say; the men's boats are knocked all to pieces. I live at Rotherhithe; I crossed over, and took a little boy with me who has served with me six months; there were two or three steam-boats passed; I stepped out as quick as I could, but I got both my feet wet; I went up, and was not gone 10 minutes; when I came back the boat was washed off the shore, the boat had been moved 50 feet; I ran into the water up to my knees, to get at the boat; the watermen were laughing at me, and said they hoped I should have a little pity for them; there were four or five lying off in boats, they could scarcely keep their boats from the shore. I suppose I was 10 minutes before I could get my boat to shore, and it was 10 minutes before I could get into her; the shore was more like a sea-beach than the river;

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it was directly opposite to Rotherhithe church; that is the case the whole of that way along, the men's boats are knocked to pieces. A man came to our court just after Easter, a very industrious man of about 28, a very strong man; we said, "You owe some quarterage, why do not you pay it;" he said, "I should be very happy to do it." "But you have just passed Whitsuntide;" "Yes," said the man, "and I have earned 2*s.*; I have earned 40*s.* on that day before now; I leave you to judge whether I can pay quarterage or not at the present."

3028. Mr. *Warburton.*] People go holiday-keeping on board steam-boats, instead of wherries?—Yes; the men can earn nothing, comparatively, and their boats are knocked to pieces.

3029. Mr. Alderman *Wood.*] To your knowledge, a great deal of injury is done to their boats daily?—Yes.

3030. *Chairman.*] Do you attribute those decreased profits on the part of the watermen to the state of their boats from the injury they receive, or to the public having adopted the use of steam-boats for going on holiday excursions?—It is by the speed of the steam-boats; the boats are knocked to pieces, and persons are deterred going in them; they are afraid to go; they go at the risk of their lives.

3031. Mr. *Warburton.*] You mean to say it is the fear of being injured if they go in a wherry which makes them go on board the steam-boats; do you not think it is the greater accommodation, being enabled to stretch their legs?—It is the fear of going in a wherry at all.

3032. Can you undertake to say that is the reason that induces persons to prefer going in steam-boats, if they are going the whole voyage from London Bridge to Greenwich?—If a person goes a mile and a half or two miles, he does not want to go in a steam-boat, but a wherry. Mr. Raymond called on me, a brother lighterman, last week, and he says, "I am going up by the omnibus, will you go?" I said, "You have your son, we can all go in a wherry for 1*s.*;" he said, "Oh no, I shall get wetted, I will go in the omnibus." Now, if we watermen are afraid to go, what must the public feel? Sometimes, from Rotherhithe, a passenger cannot be shipped or landed for 10 minutes together at the lower part.

3033. Mr. Alderman *Wood.*] You can speak positively to this, that in the river, or going down to either of the docks, people are absolutely afraid to go into those boats to perform the passage?—Yes, decidedly.

3034. Mr. *Angerstein.*] Have not the watermen decreased below bridge much lately?—That I cannot say; they have gone away from the stairs. I used to see from 14 or 15 to 30 of those people sometimes, and more at times; at King's-stairs there is not a waterman now where there used to be 20 or 30; sometimes there are none plying there; we cannot say how they are employed; many of the men have gone into the workhouses in the neighbourhood I live in: people will not go with them, on account of the danger.

3035. Mr. *Warburton.*] You undertook to say what was the reason that induced people to go by steam-boats instead of by wherries, that they are afraid of accidents if they went by wherries; you gave that as a general rule?—I say, if any one were going to Gravesend, he would prefer going by steam-boat, but not two or three miles.

3036. They would go at a much better rate?—Yes; but how are they to get on board? there is a vessel passing Cuckold's Point, Rotherhithe, you cannot come on board a steam-boat there; it is hardly possible for you to go in safety in smaller boats.

3037. Mr. Alderman *Wood.*] If they were obliged to build larger boats, do you think if a fund were raised for that purpose, it would be desirable they should have those boats, that it would give them more employment?—The men deserve some compensation for the injury they have received, but that would not be a sufficient means of protection against the steam-boats.

3038. You think, with their speed, no boats can stand against them?—Yes.

3039. Mr. *Warburton.*] What is your object in checking their speed?—To get rid of the immense swell.

3040. Mr. Alderman *Wood.*] The city have put up half-mile posts the whole way down to Greenwich?—Yes.

3041. Consequently the vessels could be checked from going at the speed they do now; they could be watched to see that they do not go faster than the four miles against tide, and six miles with the tide?—Yes, they might be checked very easily.

3042. Mr. *Angerstein.*] Do you think any benefit has arisen from putting up those posts?—None at present, for there is no power to fine.

3043. Mr. *Warburton.*] You say that vessels of 600 tons could not accelerate their speed; would you apply the same rule to large and to small, as to the rate at which they should go?—I think boats under 150 tons which I believe is about the burden of the Gravesend boats, might be allowed to go a mile an hour extra; any boats hereafter to be built, I think ought not to be larger for Gravesend and westward.

3044. What is the usual tonnage of the Woolwich and Gravesend boats?—I believe the Gravesend are about 130 or 140; I am not aware what the Greenwich are; they are smaller.

3045. Mr. *Angerstein.*] Would you recommend that the same principle should be applied to them, that the small boats should be allowed to go faster than the large ones in proportion to their tonnage?—All under 150 tons, I should say, might be allowed to go a mile an hour more.

3046. Mr. *Warburton.*] With regard to the small boats, is it not necessary they should occasionally accelerate their speed to get out of the way of mischief?—Yes, occasionally; they are lighter; they could do that at times.

3047. If you laid down that they should not go more than so many knots an hour, they must accelerate their speed occasionally to get out of the way of danger?—Yes; but my fear is that they would accelerate half a mile before, and endanger persons by so doing.

3048. Must you not make exceptions in favour of those small boats, allowing them to accelerate their speed to escape danger?—Yes, within a moderate distance; but I will imagine occasionally that a vessel is going at a certain rate; she accelerates; I am going with persons in my boat, and we are near to being swamped or drowned.

3049. Mr. *Angerstein.*] Are you not of opinion that if steam-boats increase as they have done, the navigation in small boats will be totally done away with?—I cannot answer that question; persons must from necessity go across the water: suppose I have a craft lying at Deptford or Blackwall, I must go by my boat, I cannot go in a steam-boat; and the ship's boats must go, let the danger be what it will: there are bricklayers and carpenters that live on the one side of the water, get a job on the other; they must cross the water.

3050. Mr. Alderman *Wood.*] Have you looked at the Bill which has been referred to this Committee?—Yes.

3051. What is your opinion as to the particular clauses of that Bill?—There want a few alterations.

3052. Will you have the goodness to suggest them?—The first section is, "that the owner, master, captain or other person having the command, direction or management of any steam-vessel, shall, when navigating the river Thames between the Limehouse entrance of the West India Docks and London Bridge, regulate the steam-engine or engines on board such vessel so that the speed thereof shall not be greater than five miles or knots in one hour." We want the limits extended to Blackwall, instead of to Limehouse Reach; the watermen's bye-laws formerly were considered to go to Deptford, but the magistrates' interpretation is, that the eastern entrance of Limehouse Reach is the West India Dock.

3053. Mr. *Warburton.*] There is another point in that clause, that there shall not be a greater speed than five knots an hour, that is, whether it goes with or against the tide; will that do?—If you think proper; but it would be an improvement to put it the other way, six and four.

3054. Take the second clause; that says, "That the master who commands the steam-boat, when the steam-vessel is near any deep-loaded barge or other craft, passage-boat, skiff or wherry, is to check the velocity of the steam-boat;" is that possible?—Yes.

3055. Take a vessel of 600 tons; looking at the number of deep-laden barges and other craft, passage-boats, skiffs and wherries that he must pass between London Bridge and Deptford, is it possible that every time he passes them he shall check the velocity of his boat?—He may be going at a slower rate.

3056. This says, that he shall check the velocity of his steam-boat when he passes them; is that possible?—Instead of keeping the steam on, he says, "Ease her;" then she stops putting speed on; the next moment they say, "Back her." They gave it in evidence before a coroner's inquest I was on, on an accident by the

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John Bull, that they could stop her in a minute. The John Bull is 600 tons burden.

3057. You stated, that if the object was to escape the danger, it was impossible for such a steam-vessel to accelerate its speed rapidly?—Not with safety in the Pool.

3058. Do you mean to say it will be possible safely to navigate a large steam-vessel of that kind, if every time it comes near a deep-loaded barge or other craft, passage-boat, skiff or wherry, they are to check the velocity of that boat?—They can do it as far as lies in their power.

3059. Would it be possible so to conduct steam navigation?—If there is a clear way, on the same principle as they stop the boat; they do it as quick as the man can speak, the men that are qualified to do it. I do not mean to say that it does not want a great nerve to pilot them, but they can do it with as much ease as a gentleman drives his horse and gig.

3060. Mr. Alderman *Wood.*] Will you proceed in your observations on the Bill?—On clause three we ask for watermen to be inspectors of steam-vessels; many are decent respectable men, and we see no reason why they should not be inspectors.

3061. Is there any other section to which you would refer?—The eighth section.

3062. Mr. *Warburton.*] With respect to No. 5, that the orders given by the inspectors shall not affect the responsibility of the person having the charge of any steam-vessel; if the inspector gives an order to the master against the judgment of the master of the steam-vessel, and the master of the steam-vessel obeys that order, is not it very hard not to shift the responsibility upon the inspector?—We do not understand the inspectors to go on board only to see at what speed she goes, not to take any charge, and to see the number of passengers she has on board, but not to interfere with the conducting of the vessel.

3063. As this regulation of taking the inspectors on board would be taken to be applied to all steam-boats, would it not be a severe tax on the small boats?—Decidedly.

3064. It would be a light tax on the large boats, but a heavy tax on the small ones, would it not?—Yes, I conceive so.

3065. Would it not be unequal in its operation?—I do not know; the small boats sometimes earn more than the large ones; sometimes they have a very great number, sometimes a few.

3066. This applies to only that part of their voyage between London Bridge and Deptford; but in a small boat that merely navigates from London Bridge to Greenwich, there must be inspectors on board all the way?—Yes; they can get a man for 6*s.* a day who would be trustworthy; but I should recommend the Committee to have inspectors at the places, and make the penalty on the owner, owners or captain.

3067. You would not recommend inspectors to be on board, but inspectors on shore?—Yes, at the different marks: and let the penalty be not only on the captain, but on the captain or owner.

3068. Mr. *Warburton.*] Would it be possible to comply with the rule, that when they are going in one direction they are to go on one side, and when in the other direction they are to pass on the other?—No, that is impossible.

3069. Mr. *Angerstein.*] Would it not be possible, if they came within a certain distance of each other, to determine which side they should pass?—They certainly do that, according to the draught of water; that seventh clause is a clause which we are aware cannot be acted up to. I have an observation on the eighth clause, the penalty under which is 10*l.*; we suggest that that should be 40*s.* per passenger, for they may take a greater number of passengers, and the fare of them would pay the fine; we recommend that they should register and license steam-vessels.

3070. Mr. *Warburton.*] Who should?—The Watermen's Company, or the city of London, or Trinity-house.

3071. What would they register and license?—Merely the number they are allowed to carry. They have a case now before the King's Bench to argue; they are resisting us, but they ought to be licensed and the masters too.

3072. They have a person from the Watermen's Company on board?—Yes, but they do that because they find that better to answer their purpose.

3073. Do you think that you have a right to lay down regulations as to the form or size of a vessel?—No.

3074. What is it you contend for?—That according to the tonnage they should license three persons to a ton, within our limits.

3075. With regard to the sailing boats, have you any regulations of that kind?—We have a regulation for the Gravesend boats, but they are done with; they used all to be licensed as to their numbers to carry; it is necessary for those boats; it is of no consequence to us, but for the public preservation. There are boats carrying 1,200 or 1,300, that are not fit. Mr. Jones and several gentlemen belonging to the Margate Company said that three to a ton were ample, and when they let their vessels for a day's excursion they limit them to that number.

3076. How many do they take now to a ton?—I should say now eight to a ton.

3077. Is not that a very great restriction, to reduce them from eight down to three?—If anything was to happen that one of those vessels got athwart a ship, I do not know what is to be the consequence; no man on board there can do anything; they are loaded on their paddle-boxes. If there were an accident on board, there would be difficulty of preparing anything, from the number of persons on board. A friend of mine, at Ramsgate last week, says there is an opposition, and they go down for 18 *d.*; they were in such a state that they could not move themselves; they could not get to the vessel's side at all, they were so crammed, they were in a most horrid state. It is from no interest to us, but only for the good of the public that I speak. Under the eighth clause, I should recommend that there should be a power to remove the captain for incompetence and improper conduct, and that every steam-vessel have the name or names painted on the outside of the paddle-boxes, in white letters on a black ground, 12 inches in length: at the present time, the whole of the Greenwich boats have "Greenwich" and the name painted out; so that if any accident happens, there is no knowing which boat it is. Formerly, the General Steam Company used to pride themselves in having their names on them, "Sir Edward Banks," and so on; but now their names are all taken off: those licensed by the Watermen's Company have the name and number upon them. The steam-boats are aware the damage they do, and would evade the public eye as much as possible. There was an accident happened last Easter to a young man and his family; three of his family were drowned; they were drowned down between two steamers, and they could not tell by which of the vessels it was done.

3078. Mr. *Angerstein.*] At this time you say there are no marks?—No, they go through the Pool in the most reckless state. On Friday last, there were four coming up: on the Duke of Sussex, the man on the paddle-box was waving his hat for them to keep one way or another, to those in the boats; those boats were going from 12 to 13 miles an hour; they were afraid of the others passing them in the Pool; it is no uncommon thing about 10 or half-past 10 to see four of them come down together; the Diamond came down last week with another; one went to the northward and the other to the southward of the Thames tunnel hoy, and she came round so as to cut the other off.

3079. Do you think it would be possible to regulate that no steam-vessel should pass another between Blackwall and London Bridge?—It would be possible.

3080. Do you think it would be possible to enforce it?—Sometimes they stop to put out passengers. I think the regulation of the speed would be the best thing; we conceive that the master of those vessels, or the pilot, ought to be licensed by some competent persons. There was one last year ran over a fishing-vessel at Woolwich; about six weeks afterwards he ran over a sailing-barge, injured the man, and killed the master's son. If the men who have charge of those vessels were liable to have their licence recalled, that would be a check; we conceive there should be a licence, with power to recal.

3081. Mr. *Warburton.*] Do you think that persons ought to license them who have had no experience of the navigation of the steam-vessels?—I think the city of London or the Trinity-house could do it.

3082. The Trinity-house consists of experienced seamen; but where can you find a body of men experienced in steam navigation to license those who shall navigate steam-vessels?—The Watermen's Company know very well who are competent and who are not.

3083. Do you mean to say they know anything about the navigation of steam-vessels?—Yes, there are many watermen who know very well.

3084. You think the Watermen's Company ought to license all masters of

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steam-vessels?—Yes, those working within our limits; they have power to do so in their bye-laws at the present time; it is not a thing we are anxious about except for the public safety; the licence is only 1 *s.*

3085. Will not such restrictions tend to increase your power, and rather to diminish the number of boats navigated?—No, not by any means; in a heavy vessel, like those of 600 tons, with a 70-horse power, what power is given to the man. The master says, you have the mail on board, I will bear you harmless, then get on as you can.

3086. Mr. *Angerstein.*] What condition of persons are generally appointed to those boats as captains?—The captains of the Gravesend boats are watermen, who have been regularly on the Thames somewhere at Gravesend, Greenwich or London; the Margate boats were the same, but they are now getting the Margate people; but they have on board London watermen to and fro to Greenwich.

3087. In the petition of the Watermen's Company, a number of accidents are set forth, and a number of persons drowned; is that the account to which you have referred, which you have kept?—Yes.

3088. How are the captains of those steam-vessels paid?—I believe they have about 100 *l.* a year.

3089. Do they receive anything from the passengers?—No, I believe not; that it is a fixed salary. The Margate captains used to have 200 *l.* a year, but they have reduced them to, I believe, now about 150 *l.*

3090. Might not a benefit arise to them from the sale of provisions on board?—That is quite a private bargain between them and the owners, and the steward; some of the boats I believe sell the stewardship to the steward, and some the captains manage.

[*The List, annexed to the Petition of the Watermen's Company, was read as follows:*]—

List of Steam-boat Accidents.

5th May 1835.—A boat having four persons in, astern of a barge, near the Mast-house, Mill Wall, was run over by the "Sylph;" one of the boat's oars was cut in two pieces, and the people were all in the water, but were saved by the watermen at the Mast-house;—the "Sylph" went on.

14th May 1835.—A man was knocked overboard and drowned out of a barge belonging to Mr. Chantler, of Bankside, by the "Greenwich," off the Custom-house.

—June 1835.—A loaded sailing barge was run down and sunk off Wapping by the "Harlequin;" the bargeman had great difficulty in saving his wife, who was in the cabin.

8th June 1835.—Henry Holland, a coal-porter, was thrown overboard, with a sack of coals on his shoulders, and drowned, off Miller's wharf, by the swell occasioned by steam-boats passing.

Same day.—George Sanders was rowing six persons up, and off Execution Dock his wherry was sunk by the swell caused by the "Red Rover" and the "Greenwich," and a man named Luder Messerer was drowned.

10th June 1835.—John Poett was rowing six persons up, and off Mill Wall his wherry was sunk by the swell caused by the "King of the Netherlands" and one of the Greenwich steam-boats, and four persons, viz. two men and their wives, were drowned.

5th July 1835.—John Scott, with four gentlemen in a sailing-boat coming up the river, the "Eclipse" going down against the tide run over them, sunk the boat, and the persons were saved by watermen who came to their assistance.

10th July 1835.—Five persons coming up the river in a wherry, past Globe-stairs, Rotherhithe, were overtaken and run over by the "Red Rover," and two of the persons who were in the wherry, named Edward Evan Jones and William Cumberland, were drowned.

19th July 1835.—A Trinity man rowing up in a wherry was met at Wapping by the "Hawk," which run over him, sunk his boat, and he saved his life by climbing up the bow of the "Hawk."

————. —A corn-runner in the employ of Mr. Landell, at Rotherhithe, was thrown overboard, with a sack of corn on his shoulders, and drowned, by the swell caused by steam-boats passing.

26th August 1835.—The "Columbine" going down against the tide, run down and sunk the oyster smack "Sally," at Woolwich Point; a young man, (the son of the owner of the smack, who is a widow,) was drowned: Francis Wall, of Deptford, was pilot of the "Columbine."

17th October 1835.—The "John Bull" going down against the tide, near the King and Queen, struck a sand barge, and knocked down her mast and rigging, by which the bargeman, named William Ibbott, was killed: in this case also F. Wall was pilot of the steamer.

Same day.—The "City of Aberdeen" going down against the tide, off Globe-stairs, caused so much swell as to sink a wherry which was rowing up with four passengers, and one man, a stone-mason, was drowned.

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29th October 1835.—The "Royal Adelaide" of Leith, going down against tide, run down and sunk the oyster smack "Fawn," off Woolwich, and Baker, the master of the smack, and a passenger, were drowned.

9th November 1835.—The "Monarch" towing-boat, coming up against tide, run over and sunk a ship's boat off Greenwich, and a boy named William Williams was drowned.

21st November 1835.—The "Princess Victoria" going down against the tide, run over and sunk a Woolwich dock-yard launch, off Greenwich, and drowned or killed two men and a boy.

4th December 1835.—The "Greenwich" run over and sunk a lug-boat, having in 21 tons of coals and 18 qrs. of barley, belonging to the Widow Durham of Kingston, at Rotherhithe; the man and boy were saved by getting on board the "Greenwich."

January 1836.—A sailing-barge belonging to Isaac Farlow was run down and sunk off Purfleet, supposed to be by the "City of Aberdeen," and two men and a boy were drowned.

Note.—In three of the above cases, viz. those of the 29th October, 9th November, and the 21st November, verdicts of manslaughter were returned by the coroner's jury, and true bills were found by the grand jury at the sessions.

3091. *Chairman.*] Has any attempt been made hitherto to regulate the speed of steam-vessels in the Pool?—We have summoned several of them to the Thames police-office, and got a penalty against them of 5 *l.*

3092. Has any law been passed?—A bye-law of the Watermen's Company, to regulate them to five miles an hour to the eastern limits of Limehouse Reach, which we conceive would extend nearly to Deptford.

3093. What is the bye-law?—For no steam-boat to go within those limits more than five miles an hour.

3094. Is that bye-law enforced?—As far as we can enforce it, but they dispute the bye-law, and it is coming on in November in the King's Bench; there have been decisions in our favour, but they say the bye-law does not include them.

3095. If it should appear that you have the power to enforce that law against steam-boats, do you conceive that any additional power will be necessary?—Yes; the magistrate says that our Act is only within our limits, and for our own watermen; but if the boat goes to Margate it takes no effect whatever.

3096. Mr. *Angerstein.*] If your limit goes to Gravesend, that would be effectual so far?—Yes; but then, I think, unless the thing were decided in our favour, it would be injurious; they might put another master on board and become lawless.

3097. Mr. Alderman *Wood.*] Is not it attended with very considerable expense to the individual proceeding against parties offending?—Very expensive indeed.

3098. Some doubts have arisen whether a steam-boat is craft under the law?—Yes.

3099. Mr. *Warburton.*] When was that law passed?—The bye-law was passed in 1828, the Act of Parliament passing in 1827.

3100. Is the word steam-boat expressly introduced in the bye-law?—Yes; steam-boat, boat, craft or other vessel.

3101. The bye-law says five miles an hour?—Yes.

3102. That you admit not to be expedient where a vessel is going with the tide?—It is harmless then; but when she is coming against the tide, if she is a large vessel with a heavy draught of water, it is a greater speed than she ought to have, particularly where she nears the ground.

3103. You admit that as the bye-law of the Watermen's Company now stands, restricting them to five miles an hour, it would be inexpedient to carry it into effect when she goes with the tide; you think the speed might be safely extended to six?—Yes. With respect to the 17th section, compelling the attendance of witnesses, the penalty is not to exceed 40 *s.*; we suggest that it be 20 *l.*; they might buy off witnesses at 40 *s.*; they would not attend; but if the penalty were 20 *l.*, it is most likely we should be able to get them.

Admiral Sir *George Cockburn*, K.G.C.B., called in; and Examined.

Admiral Sir *George Cockburn*, K.G.C.B.

3104. Mr. Alderman *Wood.*] WILL you favour the Committee with your opinion with regard to this particular point of the regulation of steam-vessels within the Pool?—I have not the slightest doubt, indeed I never had, that it is essential and necessary to make some regulation of the description proposed by the present Bill. I think it is extremely dangerous for steam-boats to run back-

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wards and forwards as they now do in the crowded part of the river, which is the part to which the question alludes, namely, from London Bridge to Blackwall, not only from the danger of steam-boats running over vessels, but, as the last witness has stated, from the danger to rowing boats that are loaded, owing to the swell that is made by those steam-boats, especially if there is any wind at the time and any swell in the river; then the additional swell formed by the steam-boat makes a row-boat, if she has many passengers in her, take in water on both sides, and the probability is she goes down. There was, in the Committee I attended some years back, evidence given of a great number of lives having been lost, and I fear, from what I have since heard, there have been since several more lives lost, owing to the Bill which was then brought forward not having been passed. The necessity for regulation of steam-boats bears more strongly on the river Thames than in any other part, in consequence of the Thames being so crowded.

3105. *Chairman.*] Have you formed any opinion what would be the best rate at which the speed of steam-boats should be regulated in the Pool?—I conceive that five knots an hour is a very good arrangement; the last witness has stated his idea that it ought to be six when going with the tide; I certainly do not understand why; I think going five knots an hour with the tide is quite enough; the vessel is perfectly under command. I do not see why she should go more than five knots, especially with the tide; going against the tide, we had some evidence, but in my opinion it did not amount to proof, that sometimes the tide went as fast as four knots; I do not believe it ever does. They endeavoured to say, that in going against tide five knots would not be enough to ensure their necessary advance towards their destination, but the evidence did not satisfy me to that effect; I think it would make it more simple if they were limited to five knots without reference to the tide; and I think that when the vessel has the power of going 10 or 11 miles an hour, the effect of reducing her speed to five miles an hour will essentially diminish the swell she occasions and the risk of her coming in contact with or injuring other craft.

3106. Do you think there will be any difficulty in carrying this into effect?—I think not.

3107. Mr. *Warburton.*] Do not you think the effect would be greatly to reduce the number of persons going in those steam-boats?—I think it would not reduce it by one, that is my strong impression; the fact is, the wherries going across the river perhaps rather more loaded with passengers than they ought, some persons now endeavour to go short distances in preference in steam-boats; but I believe, generally speaking, those going merely across, or going very short distances, prefer going in wherries, and will continue so to do: but I do not think regulating the rate of the steam-boats in the crowded part of the river will make a difference of any importance in the usual number of passengers in the steam-boats.

3108. Do you think that the time in which a vessel can go from London to Greenwich has not a very material influence on the conveyance a person will use?—Every person likes rapid travelling, and no one more so than myself; but the steam-boats will still go faster than any other mode of conveyance.

3109. What is the distance by water from London to Greenwich?—I am not very sure, but I should say from London to Greenwich must be somewhere about five miles.

3110. That would make it an hour to go to Greenwich?—Yes; I think if the Bill were to extend to Deptford only, that would do; that would be but four miles of reduced pace.

3111. The time by stages is about an hour also?—Probably.

3112. Then they will be able to make only two voyages by this regulation where they now make three; they will be compelled to increase their charge nearly in proportion, will they not?—I should suppose so; that depends upon the competition entirely.

3113. The competition must be limited by the expense to which they can afford to go?—Of course; but they take so very many passengers in proportion to what a coach will do, they could take passengers at a vast deal cheaper rate. It certainly does not appear a very great sacrifice of time to a person going from London to Greenwich, if it is within the hour.

3114. Mr. Alderman *Wood.*] What would you advise as the best mode of checking their speed?—My impression is, that if a law were made to check their speed, and a penalty imposed on those who transgress the law, giving the magistrates

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trates a power to determine whether they had transgressed the law wilfully or from necessity, it would prove sufficient, without appointing any inspector or other person to be on board of each vessel for the purpose. It strikes me, on reading the Bill, that you are making an unnecessary difficulty, if I may be allowed to say so, by putting inspectors on board; it must be a source of a great deal of quarrelling between the inspector and the master, and it appears to me it would be liable to a constant difference of opinion as to whose fault it really was that any accident happened; and if the master is subjected to a penalty in the event of accident, the control and management of the vessel ought to be with him, without interference from an inspector or other person; and in the event of accident, there will always be, in my opinion, sufficient evidence to establish the fact, if the steam-boat was at the time proceeding at a greater rate than allowed by law.

3115. *Chairman.*] Unless there is an inspector on board, will it be possible to ascertain whether the steam-boat has been going beyond the rate allowed by law?—It will not be very easy perhaps to ascertain whether she was going a very small proportion more or less, but if she was going a mile or two miles more than she should, that would be easily ascertained, either by the marks on the river, or by a man accustomed to see vessels going up and down the river, who would have no difficulty in making affidavit before a magistrate that a vessel had been going nearer seven knots than five, and the very power of bringing the masters of the steam-vessels before the magistracy will have an effect upon them. If I recollect right, there was a proposal brought before the former Committee to have what is called a tell-tale fitted in the steam-boats, to tell the number of knots a vessel was going; but I own it appears to me unnecessary to oblige them to have it, and I always thought and still think the thing is sufficiently apparent when a vessel is going much more than the rate allowed, and that there will be plenty of evidence, if it becomes necessary from an accident or otherwise, to prosecute a person on the point.

3116. If it was not an inspector but a common informer that brought forward such charge, would he not be placed in a difficult situation; would he not be likely to be used roughly by some of the passengers on board?—He need not state to the passengers on board that he was going to do it; but in most cases there would, in my opinion, be many in the vessel, or in vessels or boats around, ready to give evidence when required, which I do not think would often happen. My objection to the inspectors is from the evil which I think will arise on board the vessel, from the man being in a constant state of dispute with the inspector, and feeling that you cannot easily make the captain liable for any accident, whilst you subject him to be interfered with by an inspector.

3117. If it is clearly understood that the inspector is placed on board those steam-vessels solely for the purpose of seeing that the law is complied with, and he is not empowered, as he seems to be by this Bill, to give directions, or in any way to share the authority and responsibility and the conduct of the boat with the master, would the objections you entertain to the appointment of such inspector remain in force?—No, certainly not; if the inspector is merely to observe in silence what is passing, and to report if the master transgresses the law, then he can do no mischief on board, that is perfectly clear; and then the only objection, which must be for the consideration of the Committee, is the expense of the man to the steam-boat proprietors.

3118. Mr. *Warburton.*] If he is merely to observe, may not that be as well done by persons appointed at stations on shore, as it could be by persons on board each vessel?—Certainly, if the vessels are known; perhaps better.

3119. Mr. *Angerstein.*] Do not you think a station might be appointed on the river side, at Greenwich or Blackwall, where each steamer should report its destination and the time at which it passes; that the time at which it passed being known, those at the station would know the precise time at which it should approach to the wharf in London, and the time might be so regulated?—A man might make the observation and calculation suggested, but it would only answer if the vessel went to her destined wharf without interruption.

3120. Supposing that course pursued, it would be necessary to have a person at the different stations where steam-vessels land their passengers, to take the time at which they arrive; consequently, the time would be checked; would not that be the best means of regulating the speed of steam-vessels?—The objection that naturally arises to that mode is this: a steam-boat, supposing she is coming to a wharf near London Bridge, after she passes Blackwall probably stops to land passengers

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passengers four or five times at different points, or may have other stoppages; then she would increase her speed to get within her exact half-hour, and the danger you desire to check would be continued.

3121. *Chairman.*] During the time you were at the Board of Admiralty, did you form an opinion that public inconvenience was experienced from the state of the jurisdiction exercised by different bodies over the navigation of the river?—Certainly.

3122. When it was thought desirable to remove any shoal or obstruction, were there the means in the power of the Admiralty to do so?—No, certainly not.

3123. Was there any public body whom they had authority to oblige to remove any such shoal or obstruction?—No, unless it were within a certain distance of our dock-yards, over which we had a jurisdiction, and exercised it so far as to do it ourselves, and of course to be paid for by the naval department; but if any serious evil had arisen in other parts of the river, we should have applied to the city of London, considering the Lord Mayor and corporation to be the general conservators of the river.

3124. Do you imagine that the city of London would have felt themselves bound to comply with any request to remove a shoal?—I do not know whether they would have thought themselves bound to comply, but my impression is that they would have done it.

3125. Supposing that shoal had been composed of materials fit for ballast, would the Trinity-house have allowed the city of London to remove it?—That I am not able to answer: if the Trinity-house could have removed it, then we should have applied to the Trinity-house to have done it; but that is the inconvenience I alluded to, and I at once acknowledge that a great inconvenience does arise from having so many bodies having rights on the river Thames, with powers clashing the one with the other.

3126. You think it very material that there should be some application of the law in this respect?—Yes, so as to have one body to have the whole charge, and to be empowered to go to the expense and take all the advantages.

3127. Mr. *Warburton.*] Do you happen to know in what manner the Trinity-house raise the ballast; whether they use the improved means of raising it worked by steam-engine, or the ordinary mode of manual labour?—I believe, generally, they use the ordinary mode of manual labour; but if I recollect rightly (speaking now of three years back), I observed one vessel working by steam a little before I left England; one below Greenwich, where they generally take ballast. I am quite certain that if one power had the regulating of the whole river and the port of London, it would be much better done.

3128. You would remove all question as to where the responsibility lies?—Certainly; I would have the advantages and responsibility in one body.

3129. Mr. Alderman *Wood.*] In cases where you had communication with the Lord Mayor and city authorities, as conservators of the Thames, have you found in general attention to any representation the Admiralty have made?—Certainly, I must do them the justice to say they always have been attentive; but it must be obvious to every one, that if the Trinity-house say, we have the power to raise ballast, and you must not interfere with us; another body can say, we are laying down mooring-buoys, and nobody shall touch them, except under our authority; and another party say, the King's interest requires a shoal to be removed here, and if nobody else will do it, we must do it at the public expense: that is a state of things most objectionable; it certainly therefore should be known in whom the power to remedy these things does really exist; and I am satisfied it would be of great advantage to the trade of London if the exercise of the whole power upon the river were placed under one known responsibility.

3130. Mr. *Warburton.*] Have you considered in what hands it would be best to place that undivided authority?—I should not like to answer that question off hand; I think that is a very large question, and it would be necessary to have full information regarding the original rights of the city on this point, before answering a question of this description.

3131. There is a clause in the Bill, directing, that when a steam-vessel shall be near any deep-loaded barge or other craft, passage-boat, wherry, and so on, the speed shall be checked; do you think it would be possible to check the velocity of a steam-vessel coming up the river, on passing every such deeply-loaded barge, passage-boat, and so on?—I think it would be possible for the master so to stop his vessel, but I apprehend the clause does not require him so to do.

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3132. He is to do so on pain of forfeiture for every injury that is done?—I think that clause a very good clause, and I do not see the slightest difficulty in its being complied with; if there is a loaded barge on one side of the river, and he is going to pass at a sufficient distance from it, he need not stop; but if a master of a steam-boat knows he shall place such a loaded barge, from their respective positions and courses, in danger, and he does not stop or check his vessel, and injury is occasioned, he ought to be answerable for it; that is a circumstance which will not occur above once or twice, perhaps, all the way down the river; a steam-boat therefore will not be subjected to any great inconvenience by being obliged either to keep at a certain distance from small or loaded craft, or to check his speed when coming unavoidably into a position likely otherwise to injure them.

3133. Do not you think there should be a distinction for that; a barge may be loaded to an improper depth, and the difficulty may be greater to the person navigating the barge when it passes the steam-boat?—There can be no doubt that barges can no longer, with equal safety, load as they have been in the habit of doing; and boats which have been used to take a certain cargo, are now put to inconvenience, and obliged, on account of the steam-boats, to take a less cargo, in order to be safer when passed by steam-boats; but I do not think a distinction, as suggested in the question, can well be made relative to the loading of the barges; and as the evil has arisen from the introduction of steam-boats, it does not seem to be unfair to require them to take every reasonable precaution to prevent the destruction of property which previously existed in security.

3134. If there is to be steam navigation on the river there must be swell occasioned by the steam-boats, which swell there never was until steam navigation was introduced; is it not necessary, therefore, for the safe navigation of the barges, if there is to be any steam navigation at all, that they should be less deeply laden than formerly?—No; at all events, I think it would be fair to give this security to them: I think that if the steam-boat was not going very close to a deep-loaded barge she would not be in danger; I therefore think it might be left as it is proposed in this Bill, to make the masters of steam-vessels liable to damages if they do not check the speed of their vessels, when obliged to approach loaded or small vessels, so as to endanger them.

3135. Will the checking the velocity of the vessel prevent the danger, inasmuch as the swell extends beyond the actual site of the steam-vessel navigating?—Yes, if it is very much diminished; I think there is no danger at a certain distance from the steamer.

3136. Mr. *Angerstein.*] Have you made any observation on the best mode of lighting steam-boats in America?—Not particularly in America, but I think the requiring them to show lights is very reasonable; they should be on the forepart of the vessel. A light on the foremast, and one on each bow of the vessel, as was I think proposed at the former Committee, appears to me an advisable mode; then if she is coming towards you, you discover the direction in which the steam-boat is steering; if the light on the foremast be exactly in the centre between the other lights, she is, of course, steering directly for you; but if it shows over one of the bow lights, or nearer to one than the other, you will know that she is steering proportionably wide of you; and in the event of your not seeing the three lights, she will be steering away from you.

Mr. *Richard Killick*, called in; and Examined.

Mr. *Richard Killick.*

3137. Mr. Alderman *Wood.*] WHAT are you?—I was brought up to the upholstering and cabinet business.

3138. Mr. *Warburton.*] What are you now?—I am out of business.

3139. How long have you been out of business?—These two years.

3140. Where do you live?—I live at No. 3, Great Russell-street, Bloomsbury.

3141. Mr. Alderman *Wood.*] Have you paid attention to steamers in the river?—I have.

3142. Have you been much on the river so as to observe them?—I have.

3143. Have you noticed their speed?—The reason that brought this to my notice and observation was, I was with my family on the river, and have been very nearly upset, and it struck me something could be done; when I drew up this Bill, I proposed nearly half of it.

3144. At what rate do you observe the steam-vessels to go in the river?—In general

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general I should think they go, between London Bridge and Greenwich, from nine to ten knots an hour.

3145. Mr. *Warburton.*] How long are they generally going from Greenwich to London Bridge?—I have been on board one, and at that time we were not half an hour coming up; the tide was with us; we were landed within half an hour.

3146. Mr. *Angerstein.*] What is the difference as to time when you go against the tide?—They put on more power of steam.

3147. What time does it take you in going from Greenwich to London Bridge when you go against the tide?—I have not frequently been on board between London Bridge and Greenwich to make that particular observation.

3148. Mr. *Warburton.*] How many times have you made the voyage from London to Greenwich, or from Greenwich to London, on board of steam-boats?—Twice from Greenwich, but never going from London to Greenwich on board a Greenwich boat.

3149. Have you been in the habit daily of observing them?—I have not.

3150. Have you gone by other boats?—Yes, by the Margate, Ramsgate, Herne Bay, Southend, and a variety of others.

3151. At what rate do they generally go?—They do not go so fast as the Greenwich and Woolwich do.

3152. Have you ever timed them between Greenwich and London?—No, but I have taken notice that they do not go so fast; I have been aboard the Red Rover, which is a Herne Bay boat, which is a very fast boat, and the Greenwich boat has passed us going down.

3153. Mr. Alderman *Wood.*] When you were with the Committee, you suggested a plan by which the speed might be so regulated that it would be no inconvenience whatever, calculated to a great nicety; is this the plan, represented on this card?—This is the plan, but it is not quite correct.

3154. Will you state the principle of that plan?—The principle of my plan is this: upon the throttle-valve that acts from the engine, that acts upon the quarter circle; consequently, the throttle that is within side the valve acts upon the half circle by moving the quarter; it gives by moving it a very little. So many horse-power, I will say 80 or 100 horse-power; if she is going with the wind and tide, I should give her one-eighth part of her power, and that will take her five knots an hour; with wind and tide in slack water, I would give her a little more; at high water a little more: against the tide she must have more of course; but this is not quite correct. There is a sort of dial-plate, which is fixed on upon the spindle of the throttle, and I make a mark, and say to the inspector, that is her power, that will take her five knots an hour. I take it off again, and the engine is at its whole power; she is not discommoded; the engineer can act and stop her, whenever he thinks it proper, in an instant.

3155. Mr. *Warburton.*] You propose to have inspectors on board to observe that?—Yes, an inspector on board every steamer.

3156. Mr. *Angerstein.*] What would be the expense of that inspector?—That I must leave to the gentlemen of the Committee.

3157. Mr. *Warburton.*] Have you made any estimate upon the subject?—A certain expense would occur: for instance, there must be an office opened here in town, and there must be a house kept at Limehouse, and here there must be a clerk in town and a superintendent; there must be watermen and a boat, who would take the inspectors from the office to the steamer, because there are many steamers that lie out in the middle of the river; they go off at all hours of the night, such as the Boulogne, Rotterdam, and so on, just as they can get into their own harbour, so that they shall get clear of the bar. For 18 steamers that shall leave the port of London every day throughout the year, I average that for those 18 steamers there must be 25 inspectors, because the man who goes on board at London Bridge is going down; there is a boat when he comes to Limehouse that takes him ashore; the next boat that comes up, it matters not whether a Greenwich, Woolwich, Ramsgate, Margate or Dover or elsewhere, he goes on board that and comes up, and he regulates her steam to see that she goes no more than five knots an hour. The man must not leave his post, even for a little time, for there may be two or three steamers leave their place of departure before she comes up; so that for 18 steamers there cannot be less than 25 inspectors. Now, those 25 inspectors cannot be put down at less than 5 *s.* a day; that would make

make 1*l.* 15*s.* a week; but eight or nine or ten of them at times must sleep at Limehouse, so as to be ready to come up with the first boat in the morning.

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3158. Mr. *Angerstein.*] What time do you calculate a steam-boat would be obliged to stop to take in the inspector?—Not half a minute; it is a very narrow place; there should be a boat lying off to take the man on board or on shore.

3159. Mr. *Warburton.*] That would be about 25,000*l.* a year?—No; that would be about 2,275*l.* a year.

3160. Mr. *Angerstein.*] You calculate that 18 steamers would quit London every day?—I merely say 18.

3161. Have you any knowledge how many do quit London daily, on an average?—No, I have not; but the more steamers there are, say there are 40, there must be a proportionate number of inspectors.

Mr. *Charles Rowland*, called in; and further Examined.

3162. Mr. *Warburton.*] HAVE you an abstract of the books produced on a former day?—I have.

Mr. *Charles Rowland.*

[*The Witness produced the same, which was read, as follows:*]

A RETURN of the Number of Passages daily made by Steam-vessels in the Port of London, describing the Rate of Speed they passed the several Inspectors appointed by the Right Honourable the Lord Mayor.

YEAR 1836.	FIRST STATION, Hiram Slade. From London Bridge to St. Katherine's.			SECOND STATION, Philip Brewer. From St. Katherine's to the Wapping Entrance London Docks.			THIRD STATION, John Jones. From London Dock Entrance to Shadwell.			FOURTH STATION, Andrew Scott. From Shadwell Dock to Limehouse.		
	Full speed.	Half-speed and Moderate.	Number of Passages made.	Full speed.	Half-speed and Moderate.	Number of Passages made.	Full speed.	Half-speed and Moderate.	Number of Passages made.	Full speed.	Half-speed and Moderate.	Number of Passages made.
July 1	14	85	99	31	53	84	6	77	83	—	—	—
— 2	19	81	100	22	37	59	10	93	103	16	49	65
— 3	18	90	108	47	37	84	20	98	118	57	65	122
— 4	8	82	90	20	49	69	10	92	102	56	52	108
— 5	15	79	94	13	60	73	5	92	97	47	50	97
— 6	7	59	66	13	47	60	10	86	96	64	41	105
— 7	22	77	99	17	58	75	12	83	95	48	48	96
— 8	19	82	101	24	76	100	34	69	103	82	26	108
— 9	13	83	96	12	83	95	34	59	93	94	20	114
— 10	25	102	127	40	74	114	33	80	113	123	26	149
— 11	34	73	107	26	60	86	38	53	91	82	39	121
— 12	—	—	—	24	32	56	46	53	99	71	32	103
— 13	29	66	95	19	47	66	65	24	89	46	48	94
— 14	24	80	104	28	45	73	71	34	105	71	34	105
— 15	24	70	94	17	55	72	74	36	100	75	31	106
— 16	20	79	99	24	43	67	74	23	97	80	25	105
— 17	36	77	113	38	42	80	83	39	122	94	38	132
— 18	14	86	100	13	57	60	71	38	109	91	18	109
— 19	13	92	105	15	66	81	67	37	104	85	32	117
— 20	14	86	100	15	56	71	84	29	113	86	21	107
— 21	14	95	109	59	30	89	90	28	118	99	21	120
— 22	15	96	111	36	69	105	101	24	125	110	12	122
— 23	21	83	114	41	65	106	—	—	—	—	—	—
— 24	32	84	116	22	90	112	—	—	—	—	—	—
	450	1,897	2,347	616	1,321	1,937	1,038	1,237	2,275	1,577	728	2,305

Charles Rowland, Harbour-master of the Port of London.

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Extracted from the Returns,
Malcolm Dunnett, Clerk to the Harbour-masters.

3163. Mr. *Angerstein.*] What is the average rate resulting from that calculation?—About one-third of them at their full speed on the upper station, one half at full speed on the second and third stations, and two thirds on the fourth station.

3164. How do you describe the full speed: what should you say is the full

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speed?—It would be difficult to describe that accurately in figures, because almost every steam-boat has a different speed.

3165. What is the greatest speed, as far as your knowledge goes, at which a steam-vessel has ever moved in the Pool?—I may safely say that I have seen them go 12 miles an hour.

3166. Is there a very great difference between the speed of small vessels and large vessels?—Very great: the speed of the Greenwich and Woolwich boats, which are of the smallest class, is from eight to nine miles an hour; from eight to eight and a half miles an hour, I have found by actual experiment.

3167. Mr. Alderman *Wood.*] Have you looked over the Bill introduced for regulating the navigation?—I have.

3168. Have you any remarks to make on any of its clauses?—I have examined the Bill altogether, and have paid particular attention to its provisions. On a former occasion I gave an outline of the system I propose, of ascertaining the speed of steam-vessels through the water; and I have merely altered the wording of this Bill, in the shape that it struck me would tend to regulate the steam, and thus propel vessels properly through the Pools of the river, without the annoyance of inspectors, and with security to the public.

3169. You mean in the clauses?—Yes; the preamble is perfectly correct.

3170. What clauses would you propose to alter?—By the 16th line of the Bill now before me, I perceive that steam-vessels are to be propelled only at the rate of five miles or knots an hour, without describing whether those knots or miles an hour are to be made by the vessel over the ground, or through the water.

3171. Mr. *Warburton.*] Are you of opinion that the speed ought to be the same over the ground, whether the vessel goes with the tide or against it?—My opinion on that subject is, that every substance moving with the same tide will be acted on in the same manner, and consequently that the power to be regulated should be through the water, whether with or against the tide.

3172. At what rate do you think they ought to be moved through the water?—I would describe it in this way: four miles or knots an hour through the water with the tide, and seven miles against the tide, that would give ample speed for the steam-boats; an opportunity would be thus afforded of travelling over the ground against the tide at the rate of about four miles an hour, and with the tide they would positively pass over the ground at the rate of about seven miles an hour; vessels moving in the same body of water are operated upon in the like manner, thus a vessel travelling against the tide would only realize over the ground four miles an hour.

3173. If you state how fast they should go over the ground, that might be according to you seven miles with the tide, and about four miles against it?—Yes, taking the force of the tide at three miles an hour, as an average position.

3174. Mr. *Angerstein.*] At what rate do you calculate the tide actually flows?—The tide moves flood and ebb on the average of three miles an hour. The second clause I have paid particular attention to; I think it would be a very great hardship on steam-boats being constantly checked, and subject to be stopped when coming near deep-loaded barges. What might be considered as deep-loaded barges or craft is in no way defined, and the word *near* may apply to one yard or to fifty; and the steam-boats themselves would not have justice done to them unless the barges and lighters were compelled to load only to a certain depth; I have seen them from time to time loaded in a most shameful and dangerous manner, with only two or three inches of swim, craft loaded with bricks, stone, flints, chalk and other things of a heavy nature; sailing-barges I have seen with the water above their decks, and boats loaded to within three inches of the wale.

3175. Mr. *Warburton.*] Would it not be exceedingly inconvenient to some of the large steam-boats, if every time they came near a deep-loaded barge, they were obliged to check their velocity?—It would be so; and to avoid such inconvenience, I should propose that no barge should be permitted to navigate or lie on the Thames without having at least 20 inches of free board or clear swim above the level of the water; and that no skiff, passage-boat or wherry, should have less than nine inches clear.

3176. Mr. Alderman *Wood.*] Did you ever know any accidents happen with those boats or heavy-laden barges, until steam was introduced?—Not so frequently, but they will occur in heavy blowing weather.

3177. How do you provide for the building those boats for the watermen?—They

They should have a particular time stated for that purpose, a twelvemonth would be a sufficient time.

3178. How are they to get the 21*l.* to pay for them?—It would be advisable, for the security of the public using these small boats, and the watermen, that the steam-boats should in some manner pay for the alteration, as they are the principal cause of the inconvenience; perhaps a halfpenny or a penny from each passenger would pay for it in a short time.

3179. You would provide a fund for the watermen to supply themselves with boats?—Yes; under a commission of gentlemen, such would be very desirable.

3180. You think they are not in a situation to provide them themselves?—Decidedly they are not. In reference to clauses numbers 3 and 4, instead of appointing inspectors generally to be on board the different vessels, I should recommend to the Committee that the Lord Mayor should have the power to appoint one or more of the present harbour-masters as superintendent, and any other persons that he might think proper as inspectors, for the regulation of steam-vessels; and the persons so appointed should ascertain, by experiment, the rate of speed of every steam-vessel plying or trading in the port of London; and no vessel should be allowed to ply or trade within the port without having a speed licence.

3181. Mr. *Warburton.*] How are they to ascertain the rate of speed?—By a clause giving power to the Lord Mayor to appoint persons to ascertain the speed of steam-vessels by experiment, by the engine and vessel.

3182. What are those persons to do; do you mean that they are to ascertain the greatest speed at which they travel, or the speed they usually travel?—To ascertain by the number of strokes of the engine the actual speed of the vessel, which can be done by taking the vessel down to Long Reach, or some nearer place, and to form regulations for each vessel according to her actual speed through the water, as driven by the force of the engine: allowing the inspector to be constantly on board the vessel is considered by the parties interested to be an infringement on the authority of the captain or pilot. The regulations made by this experiment of the rate of the vessels should be painted on the paddle-box, and by that the speed should be governed through the Pools, according to the rate four and seven miles an hour.

3183. Mr. Alderman *Wood.*] How do you follow that up, by ascertaining how they go up and down the river, if there is no person on board?—Any person might take the watch from the pocket, and counting the strokes of the piston, and referring the number to the board or scale of regulations, he would at once ascertain the speed of the vessel.

3184. How is it to be ascertained, if there is no person on board charged with the duty, that the vessel is going at a certain rate faster than the law would allow; do you mean that a common informer must go before the magistrate and lay an information?—Decidedly so, or any other person.

3185. How would you get common informers to do that?—By placing a penalty on the owner, master, engineer, pilot or other person having charge of the vessel or engines. I propose that those laws should be hung up or painted on the paddle-box, in a conspicuous place, for public inspection and information.

3186. When you get at the speed, who will be willing to give information to recover the penalty?—I am not aware, but think there are many such persons; in cases where laws are made with penalties, the prosecution for them is open to every person by information before the magistrates. A person or persons may be appointed by the Lord Mayor during the summer months, and stationed in different parts of the Pools, which would tend to the good regulation of those vessels.

3187. Mr. *Angerstein.*] It has been stated to the Committee that many steam-vessels have neither name nor number upon them; is that the fact?—It is. There is another point I wish to bring to the notice of the Committee, that is respecting the lights proposed by this Bill to be carried on each bow of the vessel. I have spoken to several masters of steam-vessels on the subject; the regulation for carrying lights they admit to be very good, but object to a light on each bow, as the reflection backward destroys the power of the conductor of seeing directly before the vessel barges, boats and other small objects; but they recommend it to be placed under the bows, beneath them; it then assists them to distinguish objects before they approach very near.

3188. Will you refer to clause seven, regulations for steam-vessels passing other vessels and craft?—I have made a remark, that it would be better that vessels

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going against the tide should keep the in-shore passage, and vessels going with the tide the centre of the stream.

3189. Would it be possible, under all circumstances, to lay down any such regulation?—It would be impossible as a general regulation, as proposed by this Bill; it would not be possible for vessels always to abide by it; I have applied the principle of the regulation as laid down in this clause. I saw the inconvenience of compelling vessels, in a tidesway and in a winding river, to pass either to the left side or right side, as a general rule; thus, on a flood-tide, one steam-vessel going down off Greenwich Hospital, on the Isle of Dogs' side of the river, and another steamer coming up, the vessel going against the tide would have to go into the stream, and the vessel coming up into the slack tide, entirely out of their course, to keep the left-hand side, or otherwise be subject to the penalty.

3190. As to the number of passengers, have you any observation?—By the late regulations of tonnage, 5 & 6 Will. 4, c. 56, s. 4, the registered tonnage has been so reduced, that the proportion of three persons to each register ton would put a very small number of passengers on board some steam-vessels.

3191. Can you say what is the actual number per ton they are now in the habit of taking?—No; I know they have taken to the number of 10 passengers to a register ton. I have made a calculation of what I consider to be the proper number for the convenience of passengers; I take the extreme length of the deck with the extreme breadth of the beam of the vessel, multiply them together, and divide by 10, which would give a very fair proportion for passage vessels; thus, for example, a vessel 100 feet long and 15 feet beam, would be enabled to carry 150 passengers.

3192. What would that be per ton?—That would be about four persons per register ton. I should propose that every steam-boat should have her name, in letters not less than six inches long, painted on each bow, and the same on the paddle-box on the outside, conspicuous to the public view.

3193. Should that be applied also to the stern?—I believe, by the Act of Parliament, 3 & 4 Will. 4, c. 55, s. 24, they are compelled to have it on the stern, under a penalty of 100 *l.*

3194. You stated, on a former occasion, that the regulation with respect to the light is not abided by?—Yes; there is a practice of placing the light on the top of the funnel, instead of the foremast-head of the vessel, contrary to the regulations which have been laid down by the Lord Mayor. I conceive such a practice subject to great inconvenience and danger to persons boarding in the night; one system of carrying the lights on board steamers should be uniformly adhered to.

3195. Mr. *Warburton.*] Do you propose that certain matters for public information should be written up in some conspicuous part of the vessel?—I do, in this manner:

PUBLIC NOTICE.

The name of the vessel, and number of passengers allowed to be on board at one time.
The master's name.
The name of the engineer.

RATE OF SPEED.	Number of Revolutions of the Engine or Strokes of the Piston.
Four miles an hour - - - - - -	(As the case may be.)
Five miles an hour - - - - - -	- - ditto.
Six miles an hour - - - - - -	- - ditto.
Seven miles an hour - - - - - -	- - ditto.
And so on to the extent of the speed of the vessel -	- - ditto.

The rate of speed allowed to steam-vessels to navigate, from the western entrance to the West India Docks to London Bridge, with the tide is four miles an hour, and seven against the tide.

The penalty for non-observance of these regulations, — *l.*

I would propose that the principal engineer should be equally liable with the captain for exceeding the rate of speed in the Pools, unless it is shown that the increased speed was by positive orders from the captain; I think the engineer should be put directly under the captain's orders, and be made answerable with the

the captain for going beyond the rate, unless under the before-mentioned circumstances.

Mr. *Charles Rowland.*

3196. Mr. *Angerstein.*] And that the proprietor should be equally liable for going beyond the rate appointed?—Yes, all should be equally responsible; the owner, master, pilot, engineer, or other person having the charge of the vessel and the engines.

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Mr. *John Banyon*, called in; and Examined.

Mr. *John Banyon.*

3197. Mr. Alderman *Wood.*] YOU are clerk to the Watermen's Company?—I am.

3198. The company presented a petition on a certain occasion some time since?—Yes.

3199. And they have presented a petition also in reference to the present Bill?—They have.

3200. Which sets forth a considerable number of accidents that have occurred upon the river; do you know of your own knowledge whether there is any addition to this list, which was made up to January 1830; have you kept any account since that?—I do not know of any of my own knowledge; I think in that account there were 18 deaths in eight months from steam navigation.

3201. What do you know of the general state of the river, as regards the steam-vessels, and their speed, &c.?—My knowledge is very limited; I am very little upon the river now.

3202. Are there great complaints made to the company by watermen?—Very great complaints.

3203. Are they constantly coming before the court complaining of the state of the river in regard of steam-vessels?—They complain of the state of the river, that it has destroyed their labour altogether; they are in a state of destitution since the operation of steam navigation.

3204. Explain to the Committee in what way that operates?—It operates by the swell raised by steam-boats, which prevents the watermen going short distances or crossing the river.

3205. Mr. *Warburton.*] Do you mean to say that it is the swell on the river that acts on small boats, which prevents their going from London to Greenwich in wherries; do not you think they prefer having leg-room in steam-boats to being cramped in a wherry?—In going from London to Greenwich they will prefer going in steam-boats; but there are shorter distances, from London Bridge to Horsleydown, to East-lane, Bermondsey, to Rotherhithe, steam-boats will not take them in for that purpose; and workmen going off to tiers of ships, and persons crossing the river, there are no steam-boats for that purpose; they must have watermen with their boats, until boats of the size of wherries are acted on by steam or some other power, to do that.

3206. Mr. *Angerstein.*] What is the difference in charge, supposing a man goes from London Bridge to Greenwich, by steam or by boat?—The charge is 6*d.* per person in a wherry; there used to be hour and half-hour boats before steam was used to Greenwich; steam-boats charge 8*d.*

3207. Mr. *Warburton.*] What is it when a person engages a wherry to go to Greenwich?—The fare is half-a-crown.

3208. The steam-boats take them for what?—Eight pence and 9*d.*; I think there are two fares, but it is not under our regulation, therefore I cannot speak with confidence; I have paid 8*d.* myself for going.

3209. Mr. *Angerstein.*] What is the difference of time required to go by steam or by wherry, in the present state of the river?—A waterman taking in a fare at London Bridge to carry to Greenwich must use very considerably more caution than he did heretofore; before steam navigation, a man then would run a fare down with the tide in half an hour in a calm.

3210. The Committee wish to have that applied to the present time?—I am not able to answer the Committee, for I have been some years out of practice.

3211. Mr. *Warburton.*] Would it not be considerable with the tide?—Yes, I think it would; because a man must use considerable caution.

3212. What would it be against the tide?—I cannot say.

3213. No person would think of going against the tide at any time?—Yes; before the Greenwich steam came up, a twelvemonth or so ago, there were regular half-hour boats went constantly.

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3214. How long would they be going down against the tide?—The best part of an hour, or about an hour, because they took the opportunities of getting into the eddies.

3215. How long are the steam-boats going?—I do not know that.

3216. Mr. Alderman *Wood.*] You say your people are very much distressed; if they were obliged, in order to retain what little business they have, to provide a larger class of boats, could they themselves build those boats?—No; I think that in their state of destitution that it is impossible that they could provide the funds; they are as poor, generally speaking, as men can be, and I believe the parishes on each side of the river will speak louder than I can upon that.

3217. Mr. *Angerstein.*] How far up and down the river do the watermen belong to the company of which you are clerk?—They belong to the company from Leigh, near Southend, to Windsor.

3218. Mr. *Warburton.*] The watermen would not be sorry perhaps to see the steam-boats put down altogether?—I cannot tell what their feelings may be, but it is useless their wishing for such a thing as that; they might as well attempt to kick the moon out of its orbit.

3219. Mr. *Angerstein.*] Many watermen have been appointed captains, have they not?—The captains all working within the limits are freemen.

3220. Mr. *Warburton.*] They are obliged to have a free waterman on board, are they not?—They are obliged by law, but I think they would prefer them even if it was not the law, because they are brought up on the river, and have a greater knowledge of its navigation.

3221. Mr. *Angerstein.*] Can you state what is the number of persons belonging to the company of which you are clerk?—I am not certain; on a rough guess I should say, belonging to the company there are about 8,000 freemen and widows who have apprentices to them, and apprentices.

3222. Mr. *Warburton.*] How many of those that have grown up are actually serving as lighermen or watermen?—I should say at least 5,000, or more than that.

3223. How many of them are men that ply in wherries?—I have made a return to the Committee of the number of licences, which is the number of wherries employed; that I think was 2,728.

3224. Mr. *Angerstein.*] Has there been any reduction of the number?—The order was to return the licences for boats that carry passengers; on the 1st of January 1836, there were 2,085 below London Bridge, and 643 above London Bridge, making a total of 2,728.

3225. Mr. *Warburton*] Many watermen have more than one boat a-piece, have they not?—Very few, unless a man has an apprentice, and he has a boat for that apprentice to work; then the licence must be taken by the master.

3226. Do you apprehend there are as many watermen as there are licences?—Yes, a great many more; a great many of our body now are obliged to seek employment at anything along shore.

3227. Mr. *Angerstein.*] Have you any means of ascertaining what their average earnings now are?—No.

3228. Mr. *Warburton.*] Have not steam-boats made a great deal of employment for them?—No; the work they destroy is much more than that they bring to them.

3229. Is not the number of persons who now make voyages upon the water very much greater than it was before the introduction of steam navigation?—No doubt of that.

3230. Do not the persons who arrive from Margate and Ramsgate and Southend, require a wherry to carry them from the steam-boat to some other part of the river frequently?—Some few; but there are others who would rather come up to the end of the voyage and land at the wharf, than get into a boat to land.

3231. Can you say whether the number of boats licensed, or watermen, has increased or diminished since the introduction of steam navigation?—The licensing system has been in operation but a short time, only seven or eight years; there were no licences before that period.

3232. Have you any documents by which you can show whether the number of boats and watermen has increased or diminished since the introduction of steam navigation?—There is no document in the Hall to show that; but previous to steam navigation, there were a great number of parties in the course of the summer who went out in boats to Gravesend, or to the villages on this side of it, and to Richmond,

mond, and higher up; parties hired two, four, six or eight watermen to row them, but that is all done away.

3233. Can you show whether the number of watermen and wherries or other boats has increased or diminished since the introduction of steam navigation?—I have nothing I can show as a document.

3234. Mr. *Angerstein.*] Have you any knowledge as to the number of steam-vessels that navigate above Westminster Bridge?—I have not.

3235. You cannot state the number of boats that navigate above Westminster Bridge?—I do not think there are above two. I think there are two that go to Richmond and Twickenham daily.

3236. How many times do they pass backwards and forwards?—Only once a day.

3237. Mr. Alderman *Wood.*] Can you give an account of the state of the river, with regard to the crowded state or otherwise?—I was a practical man till the year 1811.

3238. Practical in what way?—By tugging at the oar, as an owner of craft; and for 22 years I was at all hours on the river. Since that period I have been only occasionally upon the river.

3239. Is there a very material alteration in the river now from what it was in your time?—A wonderful difference since my time. I was on the river previous to any docks being made, when all the trade of the country was lying out in the river; and the difference between the state of the river now and then is wonderful.

3240. Mr. *Warburton.*] What is the difference; was it more or less crowded?—It is much less crowded, and there is a good passage for any purpose now, which there was not in my time.

3241. Mr. *Angerstein.*] Is the river deeper or shallower now than it was at that time?—I should say shallower.

3242. Mr. *Warburton.*] Have you made any observations upon that?—I have made observations on the state of particular parts; where vessels have been removed from lying, that part is filled up in a greater or less degree.

3243. Have you ascertained of late years the actual depth?—I have not.

3244. Mr. *Angerstein.*] As clerk of the Company you have collected information, and the result of that is, that the river is shallower?—Yes.

3245. Mr. *Warburton.*] What information have you collected, of what nature, and from whom?—From various persons who have spoken on the subject.

3246. What have they told you?—From the eastern entrance of the London Docks there has been a number of vessels removed; from Shadwell Dock up to New Crane there is less water since they were removed; in the tiers there in my time vessels of a considerable draught of water used to lie; a loaded vessel now cannot lie there, the water is so shallow they could not lie at that part: the same up to Wapping Point; in my time there were tiers of West Indiamen used to lie in a considerable depth of water; I understand now there is not water for them.

3247. Mr. Alderman *Wood.*] Do you think 300 feet necessary to be kept clear?—I do not think 300 feet is necessary; if 300 feet is kept some interests must suffer for it, the state of the river now is so clear and straight to what it was in my time; the river was then so crowded, the tiers used to overlap one another, and we used to be obliged to bring up, so as to prevent getting athwart hawse.

3248. *Chairman.*] What is the width of the space now kept clear in the river?—In the Upper Pool I should suppose 200 feet, or from that to 240.

3249. What is the space you would think sufficient, taking care that it should be regularly kept clear?—I think a good waterway of 250 feet would be a fair space.

3250. Mr. *Warburton.*] Have you been much on the river since they have taken up large vessels to St. Katherine's Docks by the steamers?—I have not; I am speaking of the state of the river, independent of the steamers and vessels coming up.

3251. Then you cannot give an opinion founded on the present state of things since the bringing up large vessels to St. Katherine's Docks, towing them up by steamers?—A large vessel coming up to St. Katherine's Dock, with a steamer on each side, would take, I should think, from 100 to 130 feet.

3252. Then if that practice is to continue, there is a necessity for keeping the width greater?—Yes; that is only to serve a particular interest, and it seems rather hard that all other interests should give way for the sake of one.

Mr. *John Banyon.*

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3253. The Thames is the King's highway, is it not?—I have understood so.

3254. Mr. Alderman *Wood.*] You are aware of the law, that two barges cannot go alongside of each other?—Yes, I am aware of that; the extreme breadth of them would not be more than 34 feet.

3255. But a large vessel may be got up with two steamers?—Yes, the width of which would be from 100 to 130 feet.

3256. The proprietors of those docks are complaining of the state of the river?—Yes; they are not liable to any penalties, whereas the owners of two barges going alongside each other are subject to penalties. In my humble opinion, the St. Katherine's Docks never ought to have been made; I would never suffer a ship of any considerable size to come up there, if I was a shipowner.

3257. Mr. *Angerstein.*] Is the dock considerably used?—Yes, so I understand.

3258. Mr. *Warburton.*] Is it not a great convenience to the merchants to have the goods near home?—The merchant would feel a convenience in what the shipowner would feel an inconvenience.

3259. What inconvenience?—From the risk, and wear and tear.

3260. What do you mean by wear and tear?—Their tackle and everything are more used in a greater distance than a less, and more accidents will occur.

3261. Mr. *Angerstein.*] Are you aware of such accidents having arisen?—It is constantly the case, it is not a single instance of a ship coming in contact; the greater the distance it comes, the greater the liability to come into contact with other vessels in coming up.

3262. What is the distance between the entrance of the St. Katherine's and the London Dock?—From half a mile to three-quarters of a mile.

3263. Mr. *Warburton.*] There is considerable wear and tear of a vessel lying in the Pool, is not there?—I should say there is considerable wear and tear from the effect of steam-navigation on every vessel; I have known the timber-head taken off colliers by the action of the swell upon them.

3264. You think a vessel regularly lying in the Pool, a collier for instance, would have considerable repairs to make at the end of the year, from wear and tear?—I do not know that they would be considerable.

3265. Repairs to an inconsiderable amount would amount to a good deal in the end of the year?—The colliers are moored quarter to quarter, and with the steamers passing something at times must give way.

3266. Mr. *Angerstein.*] That creates a good deal of friction, sufficiently powerful to injure the vessel?—Yes, a timber-head has been torn out.

3267. Mr. *Warburton.*] Have you ever had a share in a collier yourself?—Never.

3268. *Chairman.*] What do you think of the propriety of establishing docks for the reception of the colliers?—I think it would be impossible for the trade to be conducted well with collier docks.

3269. Mr. *Warburton.*] Why?—The trade is so large; it is such an immense trade there would be such impediments that the trade could not well be carried on, and it must increase the expense to the public. I will mention a fact that occurred in the course of my time: I think in 1799, from the prevalence of easterly winds, there were no colliers here for some weeks; there was a complete dearth of coals; on a Wednesday, in the month of April, a little Sunderland brig sold for five guineas a chaldron; on the Friday following all the trade had their barges ready to begin the ships sold; on that day there were from 250 to 300 sail at market, and many of them were set to work, and the town supplied with a considerable quantity of coals on that evening; but if those ships must have all gone into a dock before they were discharged, the town must have been without fuel for another day.

3270. Mr. *Angerstein.*] Do not you think that if collier docks had been in use in that year coals would never have risen to that price?—Equally; for there were no coals in London, they were all burnt out.

3271. The coals that happened to be in the river were burnt out; but if collier docks had been in the river, there would have been a very large reserve of coals, would there not?—No; the coals in the month of April 1799 were all consumed, except those in the stores of private families.

3272. Mr. *Warburton.*] Steam-boats would bring them up now if there was such a scarcity, would they not?—I think that it is remedied in a great measure; now that steam-boats can tow them out of the Tyne, there will never be that dearth again which there has been, I should think.

Mr. *William Cunningham* called in; and Examined.

Mr. *W. Cunningham.*

25 July 1836.

3273. Mr. *Angerstein.*] WHAT is your occupation?—Captain of the Fairy steam-packet, plying between Woolwich and London.

3274. How long have you been so employed?—Nearly two years.

3275. Has any accident occurred since you have been captain of that vessel?—Nothing to cause the loss of life.

3276. At what rate does that vessel make her passage from Woolwich to London?—Generally about eight miles an hour.

3277. What is her tonnage?—77 tons.

3278. What number of persons does she carry?—The most we have carried is 500 persons; the average number on extreme freights about 200.

3279. Are you limited to number?—No.

3280. Are you aware that it is essential for the steerage of a steam-vessel that she should go at a fixed rate?—No; it is my opinion that she ought not to go at a fixed rate.

3281. Must she go at a certain rate for your helmsman to steer her?—Yes, she must go at a certain rate.

3282. What rate is that?—I should say she must go at the rate of four miles an hour through the water.

3283. That would be sufficiently fast?—That would be sufficiently fast, in my opinion, to navigate the vessel by.

3284. Mr. *Warburton.*] The rule to go five miles, whether with or against the tide, would be a regulation that could not safely be complied with, in your opinion?—It could not.

3285. Are you of opinion that if an inspector was put on board a steam-vessel with any authority it would lead to contention, inasmuch as he would interfere with the captain, and might thus endanger the vessel?—It is my opinion it would; if there is an inspector on board the vessel, I believe there would arise contention between him and me.

3286. Supposing he was to control you?—I should think that was wrong.

3287. Mr. Alderman *Wood.*] Suppose he was to be mute, and only take a memorandum?—If he even took a memorandum, there would always be a jealousy between him and the master.

3288. Suppose he only took a memorandum of the rate at which you went, and said nothing to you, would that be any interruption to you?—It is my opinion that it would be a great interruption, inasmuch as there would be offence taken by the passengers; that our passengers, I think, would take notice of it, and he would generally be viewed as a spy; it would interrupt the whole of the navigation of the vessel.

3289. In what way would the passengers be offended, if he was there to save the lives of their fellow-creatures?—We have had no loss of life, that I am aware of.

3290. Mr. *Angerstein.*] As captain of a steam-vessel, you are frequently under the necessity, with a view to saving the lives of persons in small boats, to propel the vessel with great force?—Most assuredly; where the vessels are closing, we must go through that place at full speed; when they are opening, we can go through that opening easily.

3291. Is it your opinion that any regulation could be established as to the vessels passing each other, on one side or the other; whether they should always keep the right or the left?—That would be very essential; it is a thing that is most requisite, to have a proper side of the river to pass each other.

3292. Mr. Alderman *Wood.*] You think that would be a good regulation?—It would be a very good regulation.

3293. Would it be possible, in a river navigation, always to adhere to it?—I have not a doubt of it, provided the vessels going against tide keep the in-shore; and with the tide, the middle of the stream.

3294. Mr. *Angerstein.*] What number of persons per ton do you believe can with convenience and safety to the vessel, and convenience to the passengers, be taken?—I should think about four or five to the ton; the vessel I have charge of could carry five to her tonnage with the greatest advantage.

3295. Mr. *Warburton.*] With convenience to the passengers?—Not with convenience to the passengers; they would be rather crowded.

Mr. *W. Cunningham.*

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3296. Mr. *Angerstein.*] What is your charge from London Bridge to Woolwich?—Nine-pence in the fore-cabin, and 1*s.* in the after-cabin.

3297. What is the actual charge for a wherry to go that distance?—Seven shillings.

3298. Mr. *Warburton.*] Are there any wherry-boats now go that passage?—Yes, I think there are three.

3299. What is the charge?—I think 1*s.*; they are luggage-boats.

3300. What sized vessels have you been in the habit of navigating?—I have been in the habit of navigating all classes of merchant vessels; in steam-vessels, I have been in the Woolwich employ two seasons; I have also been engaged in the tugs that tow ships up and down the river.

3301. What size were they?—They were about 70 tons.

3302. Should you be able to check the speed of steam-vessels on passing near any deep-loaded boat or other craft whenever you came near it?—It is a constant rule I make, at present; when I find the craft is deeply laden, I ease the vessel directly.

3303. Mr. *Angerstein.*] When your vessel is fully laden, what number of feet water does she draw?—About 3 feet 6 inches.

3304. Is there a very great difference between the motion created by the action of the wheels of a small vessel and a large vessel?—A very great deal.

3305. Mr. *Warburton.*] Does your steam-boat go in the winter, in the dark?—Yes.

3306. Do you carry lights?—Yes, we carry a light under the bow, and another upon the funnel-stay, as we have no mast on account of the bridges we go through.

3307. Mr. *Angerstein.*] Is the name of your vessel on the stern and on both sides?—On each paddle-box.

3308. Easily read?—Yes, in very large letters.

3309. What is the size of the letters?—I cannot say; they are large; they are cut in the wood, and painted white.

3310. Mr. *Warburton.*] How long are you going with the tide from London Bridge to Woolwich?—In about an hour and 20 minutes.

3311. Against the tide?—Two hours.

3312. Do you think that if that speed were reduced, so that whether with the tide or against the tide you were prevented going faster than five miles an hour through the Pool, the number of passengers going by your steam-boat would be much reduced?—Yes, very much reduced, and the business people would not go with us.

3313. You could not reduce the speed of steam-vessels going through the Pool to that extent without materially diminishing the number of passengers going by them?—Certainly not.

3314. Mr. *Angerstein.*] Persons in that case can go quicker by the stage?—Yes, and the public would tell us they could go by the stages or by the wherries equally as well.

3315. What is the charge per stage?—Eighteen-pence.

3316. Mr. *Warburton.*] How long are you going to Greenwich with the tide?—About an hour, sometimes rather less; generally speaking, an hour.

3317. Against the tide, how long?—About an hour and a quarter.

3318. Mr. *Angerstein.*] That includes stoppages?—Yes.

3319. Does the boat in that case come up to Hungerford?—Yes.

3320. Do you reckon her time from Hungerford Market?—Yes.

3321. You stop at London Bridge to take in passengers?—At Queenhithe.

3322. What time do you stop there?—We stop there to take in and to put out passengers, as quick as we can; we turn round and go away again directly.

3323. *Chairman.*] How many boats are there which belong to the company to which you belong?—Four.

3324. Mr. *Warburton.*] How many voyages in a day does each boat perform?—There

—There are three boats on the station each day; two boats make five passages each a day, the third boat makes six.

3325. That is in the summer time?—Yes.

3326. How many in the winter?—We make two each in the winter, with two boats only.

3327. Mr. *Angerstein.*] By a passage, do you mean each way?—No, either up or down.

3328. The same boat must sometimes stop in London?—Yes; one boat is regularly one night at Woolwich and one night in town.

3329. Do you believe a regulation reducing their rate through the Pool to five miles an hour, whether with or against the tide, would have the effect of putting down the Woolwich boats altogether?—In a great measure in the winter it would, certainly.

3330. *Chairman.*] If a regulation was adopted of reducing the speed in the Pool to four miles an hour through the water, you think that would not have the effect?—No; four miles through the water with the tide would do.

3331. You think that would insure the security of the Pool, and at the same time would not be injurious to the steam navigation?—That is my opinion.

3332. Mr. *Warburton.*] How fast would that be with the tide, and how fast over the ground against the tide?—With the tide it would be seven miles an hour, and it would require to go seven miles through the water against the tide to accomplish four miles an hour over the ground; the tide runs about three miles an hour as near as possible.

3333. Mr. *Angerstein.*] Your vessel has the power of going at the rate of seven miles against tide?—Yes.

3334. And you usually move at that rate?—Yes.

3335. At what rate over the ground do you move going with the tide?—It is about 10 miles, as the tide is going about three miles an hour.

3336. Is there a great deal of wear and tear in the machinery in consequence of that rate?—No, not the least.

3337. Mr. *Warburton.*] Would it be sufficient to go four miles an hour through the water when you are going against the tide?—No, certainly not; that would be going only one mile by the land.

3338. In going against the tide, how fast should you require to go through the water in order to go five miles an hour?—About seven or eight I think.

3339. *Chairman.*] You were not quite correct in stating to the Committee that it would be sufficient to adopt, as a general rule, that in every state of the tide steamboats should be required to go four miles through the water in the Pool?—No, I did not take into consideration the tide.

3340. Mr. *Warburton.*] What general rule should you propose for the velocity of vessels?—I should say four miles through the water with the tide, and eight against it.

3341. *Chairman.*] Do you consider that rate of velocity indispensable to the proper steerage of a steam-vesssel?—Yes, certainly; she would be in the way of sailing-vessels if she did not move at that rate, for sailing-vessels would go much faster than steam-vessels do.

3342. Mr. *Warburton.*] What is the rate at which sailing-vessels go through the Pool?—That is regulated by the wind; in strong winds they go at the rate of eight or ten miles an hour through the Pool.

Lunæ, 1° die Augusti, 1836.

MEMBERS PRESENT.

Mr. Labouchere.	Alderman Wood.
Captain Alsager.	Mr. Williams.
Mr. Warburton.	Alderman Thompson.
Mr. Crawford.	Mr. Young.

MR. LABOUCHERE, IN THE CHAIR.

Captain *Francis Beaufort*, R.N., called in; and Examined.

Captain *F. Beaufort*, R.N. — 1 August 1836.

3343. *Chairman.*] DO you consider the navigation of the Thames to be in a satisfactory state?—Every day's experience convinces me more strongly of the necessity of having the preservation of the Thames navigation committed to the guardianship of some active, impartial, and permanent board, such as the Admiralty or Board of Trade, who know what regulations should be made, who would have power to enforce them, and who would appoint proper officers in different parts of the river, not only for that purpose, but to detect any encroachments from the shore, or any accumulation of gravel or mud in the bed of the river.

3344. Do you think that if proper control had been exercised over the river, its navigation would be in a better state than it is now?—If such board had been appointed to take care of the river, some wholesome system for its navigation by the different kinds of craft would have been adopted; the disgraceful nuisances of projecting jetties would have been prevented, the landing places and hardways which were absolutely necessary, only would have been allowed, and they would have been kept within proper limits, instead of the pernicious practice of their following out the low-water mark as the banks advance; the pier at Gravesend would never have been brought into the House of Commons, the recently proposed pier at Greenwich or Deptford (which, it is said, the city countenanced), would never have been thought of, nor would the floating piers there have been suffered.

3345. How would the growth of shoals in the bed of the river have been prevented if a proper vigilance had been exercised on the shores?—Because this board would have steadily employed proper craft and proper machinery, under the direction of a competent engineer, to remove the first deposit of gravel or mud; secondly, by breaking up the indurated crust of those ancient shelves or banks which are so strongly bound as to have resisted the action of the stream; and, thirdly, by continually taking the mud away from the extremities of the hardways, in order to lead to their gradual reduction both in length and height.

3346. Have the operations of the Trinity-house had a useful effect in lowering the banks where their ballast lighters work?—Certainly; but not half as much as would have been the case if those operations had been conducted under one steady system. The elder brethren of the Trinity-house are well disposed to improve the navigation of the river, and have always given the most ready attention to every application to them on that subject; but still the raising ballast is an affair of profit, and wherever gravel or shingle can be procured with the greatest facility, and at the least expense, that is on those parts of the bank where they lie most high and most loose, and where the least waste occurs, there the ballast people are, of course, most disposed to work; and as some parts of a bank are more convenient for working than others, the consequence is, that the surface is very unequally ploughed, and that the hollows are soon filled up again by fresh deposits. Whereas if their operations were carried down to a certain gauge, that is, if one foot, or two or three feet were removed throughout the whole bank, the fresh materials swept down the river would pass on, and settle further out every year.

3347. The Trinity-house, then, never remove the mud or other substances which will

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will not serve for ballast?—No; nor under the present system would it be expedient that they should be obliged to do so, because the men who are accustomed to any one pursuit will always perform it better and quicker than if engaged in other occupations; and, therefore, for the removal of those useless materials, other hands should be employed; but, certainly, the general superintendence of all such operations should be vested in some public and responsible authority, who have no other objects in view than the efficient conservancy of the river navigation; not as a mere collateral occupation, but as a duty in itself of infinite importance.

3348. Do they do their work all by hand, or do they employ machinery?—They employ machinery sometimes, and a great many craft, which are worked by hand.

3349. Mr. *Warburton.*] Do the Trinity-house employ steam-engines?—They have one or two, I believe. Whether the superintendence to which I have alluded would be best entrusted to a branch of the Trinity-house, or to the Admiralty or Board of Trade, or to a special commission, I will not venture to say.

3350. The operations to which you allude imply a considerable expense?—They certainly do so; but the ways and means it is not my business to point out. This much, however, is evident, that if they are not provided by some means, and applied in some such manner to this important object, the commerce of this great city will, at no very distant day, have to lament such short-sighted policy. A very considerable sum is paid for the supply of ballast; and it would seem to be but fair that a proportion of the profits arising from those products of the river, which are saleable and valuable, should be employed in the removal of those which are unsaleable and mischievous.

3351. Captain *Alsager.*] Are you aware that some years there is a cost on the ballast-moving?—No, I have never heard that; a very small duty on all vessels above 50 tons which enter the river would, I imagine, produce a sum amply sufficient for the purpose; and as the expense would annually vary, according to the work required to be done, an estimate might be prepared at the beginning of each year and divided among the whole of the shipping, according to the average tonnage of the three last years. The prodigious advantage that would result from a consistent set of measures for the above objects would reconcile every person to its payment.

3352. *Chairman.*] What is the manner in which other navigable rivers are kept clear of shoals?—There is always, I presume, some corporate authority or power, as at Liverpool and Bristol, and other places.

3353. There is a power of raising funds, and a body to watch over its due application, which does not exist in the river Thames?—There is a power to watch over the due application, and I should presume to raise money for the purpose.

3354. Mr. *Warburton.*] Have you ever noticed, with regard to the steam-engine machinery that is employed in the Thames for raising up gravel, that the greater part of what they raise they throw into the river again; that they sift it, and merely save the large gravel, but allow all the small sand to fall into the water again?—Yes, always; which would not be the case under a board whose object was to clear the river.

3355. Captain *Alsager.*] Would not that ballast put into a ship, mixed with mud, be liable to cause contagion in a ship?—It would be very unsuitable as ballast, if mixed with mud, and that shows still more the propriety of separating the two concerns. But there would be no great harm done by the rejection of the sand and mud, provided the banks from which they were lifted along with the ballast were still effectually and equally lowered. What I object to is, that they take it here and there, wherever it happens to be clean, and in a convenient situation; thus leaving the bed of the river in hills and holes.

3356. Do you conceive that the difficulties in the river to navigation on account of shoals are on the increase?—Captain Bullock's recent survey being the first that was ever made of the Thames, it is impossible to speak with accuracy of the changes which have taken place; but as nature works on the same principles here as in every other river of the world, by continually bringing down fresh materials from the interior of the country, there must necessarily be a tendency in the shoals and deposits to increase, unless counteracted by a constant series of uniform and judicious measures.

3357. Mr. *Williams.*] You have spoken of projecting jetties being made to the interruption of the navigation; are you aware of the fact of permission for constructing

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structing those jetties being given, and if so, by whom?—I believe the city, the present conservator of the river.

3358. Are you aware that they receive sums of money for those jetties?—I am not aware of that.

3359. You state that the Trinity-house are always ready to improve the navigation of the river; do you find that the corporation are always ready to render them a helping hand in the improvement of the navigation?—I cannot say that they are not; but I do not know of any instances in which they have assisted them. In my official duties I have never had any correspondence with the city; but with the Trinity-house I often have.

Captain *Frederick Bullock*, R.N. called in; and further Examined.

Captain *F. Bullock*, R.N.

3360. *Chairman.*] SINCE you have surveyed the Thames, has anything occurred to call your attention to the conservancy of the river?—Yes; my attention has been drawn to the subject by my having been directed on two or three occasions to report officially on piers, or projects for piers; but particularly by the resistance of the harbour-masters on one hand, and the reluctance of the navigation committee on the other, to concede the 300 feet of water space allowed by the bye-laws. I was ordered by the Admiralty to attend the committee, and I gave evidence before them; but until the Lord Mayor issued his mandate, there was no attention paid to either public or private remonstrance on the subject.

3361. With reference to the plans of the river which you laid before this Committee, does the present state of the river give evidence of the vigilance or efficiency of the conservancy?—I think I may venture to say that the present state of the river is the greatest proof which can be adduced of the inefficiency of the conservancy. It is unnecessary for me to state that if common pains only had been taken to investigate the cause of the nuisances, and to see that means were adopted to remove them as they occurred, the public would have had no reason for complaint.

3362. What part of the river is most affected by obstructions to the tide, and what is the nature of those obstructions?—The upper part, or the Pool, is most affected by obstructions at the present moment; Woolwich Reach, or rather the harbour of Woolwich, was very much injured by a solid projection at Long's or Trinity Wharf, and exhibits a fair example of the pernicious effects of projections into tidal rivers. It has cost the Government nearly 100,000 *l.* to remove the mud at the dock-yard wall, chiefly caused by this projection.

3363. Which are the principal projections into the river, and what, in your opinion, have been the consequences of them?—In the Pool principally, by the causeways which run out on either side of the river. Long's wharf has been lately removed by the Government, at great expense; but there are chalk wharfs at Erith, Greenhithe, Purfleet, and a great number at Gravesend, which have been built out; some nearly to low-water mark. These invariably affect the sides of the river, and have a tendency to contract it wherever they occur.

3364. Mr. Alderman *Thompson.*] Are there any timber floats below bridge, opposite the timber wharfs?—Yes.

3365. Are they injurious to the river?—Very injurious.

3366. Your opinion is that they should be removed?—Yes, every obstruction, however small, should be taken away. I have invariably opposed everything in the shape of a projection standing out into the river, and piers, however advocated, I have opposed in Committees of the Houses of Lords and Commons, as well as at the navigation committee.

3367. You allude to Long's wharf as an example of the pernicious effects of solid projections into a tidal river; did you report upon that projection and recommend its removal?—I have reported several times on Long's wharf, and recommended its removal as the best means of improving the harbour of Woolwich, in connexion with some shoals.

3368. Do you know whether Mr. Long obtained the consent of the conservancy before he built his wharf?—I cannot recollect that; but it was built, however, and conveys an appearance of negligence on the part of the conservancy, to say the least. I recollect a fact connected with this wharf, which may be interesting to the Committee; it was indicted at Maidstone, and convicted as a nuisance, yet in the face of that successful issue, and all the remonstrances of the officers of Woolwich,

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wich, it was allowed to remain there, until the Government at a great expense lately removed it, as I before mentioned.

3369. Have the city authorities power to remove shoals which impede the navigation of the river?—I believe they disclaim any such power, although conservators of the Thames.

3370. Would the Trinity-house allow them to do so without their permission?—Not without their permission; they claim all the bottom of the river as the property of the corporation.

3371. Are the city authorities bound to remove a shoal that is injurious to the navigation of the river?—I believe they disclaim that also; they affirm they have no funds applicable for such purposes, necessary as they certainly are at this moment.

3372. Is the Trinity Board bound to remove such shoals?—No, certainly not.

3373. The removal of shoals which obstruct the navigation of the river, is not provided for, in your opinion, by the charters of either of those corporations, as they consider them?—No, neither one nor the other consider themselves bound to remove shoals, but they do not object to work and raise ballast from such shoals, provided it be good and serviceable. Their object is to procure ballast for the shipping, but the removal of foul and incrusted shoals form no part of their charter.

3374. Do you consider it desirable that some provision should be made to effect that?—Yes, certainly, as the river is in a dangerous state at the present time; from one end to the other the river is full of shoals, some of which seriously impede the navigation.

3375. Mr. *Warburton.*] When was the indictment you refer to, in the case of Long's wharf, tried?—I am not aware of the exact period, but it can be ascertained from the master-attendant of the yard, who was, I believe, on the trial. At this moment the state of the river is as bad as ever; it would cause as much expense to get the mud away, should that measure be now required to improve the port.

3376. Mr. Alderman *Thompson.*] Have you been through the Pools within the last six weeks or two months?—Yes, I came up this very morning.

3377. Have you been frequently in the habit of passing through the Pools for the last six weeks or two months?—Several times.

3378. Have you observed a marked difference in the state of the Pool within the period referred to?—Decidedly; this morning it was clear, though not quite the 300 feet, but there was not a single obstruction.

3379. Is it within your knowledge that the harbour-masters were summoned before the elder brethren of the Trinity-house two months ago?—Yes, information was given me.

3380. Do you know what passed upon that occasion?—No, but I heard they were obliged to submit to the 300 feet space.

3381. But since that time there has been a marked improvement in the state of the Pool?—Yes, there is no doubt of that.

3382. Mr. *Warburton.*] You consider the space of 300 feet would be sufficient?—Yes; it is not 300 feet, but that is all which can be spared; I would give them at least 300 feet, not one foot less.

3383. Mr. *Williams.*] From your observation of the state of the Pool, do you consider it practicable to keep a waterway of 300 feet, without obstruction to the shipping of the port?—I think so; I have given that in evidence; and also the moorings of the colliers, they might have many more there without inconvenience, if properly moored.

3384. Mr. Alderman *Thompson.*] In point of fact, the state of the Pool for the last two months proves that the 300 feet may be kept?—Yes, the moment they were compelled to do it, it was accomplished.

3385. Mr. *Williams.*] How narrow have you known the waterway to be occasionally?—One hundred and thirty feet once, and 150 and 175 feet occasionally.

3386. You consider that keeping it in that narrow state is occasioned by the want of the proper performance of duty on the part of the harbour-masters, and not any cause required by the shipping?—There were several obstructions not under the control of the harbour-master, but certainly they were generally from a defect of the harbour service, or a misconstruction of the bye-laws.

3387. Mr. *Warburton.*] Are you under any apprehensions, that if by making colliers docks, the number of vessels now lying in the stream could have other

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berths, there would be any danger of the channel of the river in the Pool filling up?—No; I have given that in evidence before; it is a mistaken idea. I have proved that tiers of ships injure the river by working it into holes at the bottom; it deepens it just under the bottoms of the vessels only; the vessels are in docks, for it rises from 12 feet water at the tiers, to one foot six between them; I mean it is excavated at the tiers, and deposited between them; all irregularities of that kind have the effect of destroying the river; I maintain that the ships placed in tiers destroy the river.

3388. Captain *Alsager.*] In what particular part of the river is the deposit of mud?—On the shore opposite the Red-house, or near Mellish's wharf; it is produced, probably, by the Whiting shoal; wherever there is an irregularity, there is a mischief produced; the undulating motion of one shoal produces another, and that becomes the cause of a third, and this undulating motion is propagated to a distance, so as to reproduce the same effects at regular intervals; and this is continually going on in the whole river.

3389. Do you know the present state of the river opposite Deptford?—No, I do not.

3390. When you surveyed the river opposite the King's dock-yard, Deptford, what depth of water had you at low-water spring tides?—I cannot recollect, but I will examine my plan, and annex a sketch of that part of the river, with the depths of water at the time.—(*See* Plan.)

3391. Are you aware of any deposit in that part since your survey?—No, I am not.

Mr. *Daniel Halsey*, called in; and Examined.

Mr. *D. Halsey.*

3392. *Chairman.*] ARE you the master of one of the Diamond steam-packets, conveying passengers from London to Gravesend?—Yes.

3393. How long have you been in this employ?—Upwards of seven years; seven years last May.

3394. Are you well acquainted with the navigation of the river Thames and with the passage of the Pool?—Yes, I flatter myself I am.

3395. Mr. *Warburton.*] What were you before you were master of a steam-boat?—I was apprenticed to my father as a pilot on the Thames; I have been in that line of business all my life.

3396. Are you a freeman of the Watermen's Company?—I am.

3397. *Chairman.*] What has been the state of the Pool generally?—I have found it invariably in a very bad state, with the colliers lying in different directions, causing the line to be very badly kept.

3398. Mr. *Warburton.*] How is it now?—It is somewhat better; it has been better lately.

3399. How long?—The last three or four months.

3400. *Chairman.*] What was the usual breadth of the passage in the Pool until of late?—Sometimes very narrow indeed.

3401. How wide?—Perhaps not more than 100 feet between low-water mark and the ships' side; sometimes very narrow.

3402. Mr. *Williams.*] How wide have you found the waterway during the last three or four months?—A great deal better than it used to be; I should think there might be 200 feet, and sometimes over that; perhaps 250 feet at times.

3403. Not generally 300 feet?—No; I have seen that, but not often.

3404. Mr. *Warburton.*] Where does the steam-boat you now command navigate to?—From London-bridge to Gravesend.

3405. Have you attended to the clauses in the Bill brought in by Mr. Alderman Wood?—I have read them.

3406. What do you think of the proposition that the speed of the vessels, taken with or against the tide, should not be more than five knots an hour?—I think five knots an hour would do very well with the tide.

3407. Do you mean with the tide through the water?—Yes.

3408. You would not object to five miles an hour through the water with the tide?—No, by no means; I should expect we should keep the vessel under proper command then, but not with less.

3409. With what velocity should you go through the water against tide?—I should say six or seven miles.

3410. That would be four miles over the ground?—Yes.

3411. Could

3411. Could you steer a boat with the tide if she was to go only five miles over the ground?—You might steer her, but she would make but little progress.

3412. *Chairman.*] Do you conceive that it would be expedient to impose heavy penalties upon the captain of a steam-vessel who should, in any case of difficulty occurring, increase the speed of his vessel beyond the legal rate?—I am afraid in that case that would often deter us from going through a place which we could escape by going fast; for there are times when we must go at even our full speed for a minute or two, to avoid doing damage to vessels or other craft.

3413. You think that would produce injurious consequences if the Act imposed heavy penalties to enforce it?—Yes; I think it would often deter me from going through a place I can now go through without damage.

3414. Mr. *Warburton.*] What do you say to this clause, that when a steam-vessel shall come near any deep-loaded barge or craft, the master shall check the velocity of his vessel on pain of forfeiture; is it possible to comply with it?—By all means; I invariably do that, unless in times of emergency, in a close point I have to get through.

3415. What do you say to the having an inspector on board your vessel, to regulate the speed at which the vessel shall go; do you think that would interfere with the duties of the master?—I am afraid at all times we should not have opportunity to consult him when we want to go by any place.

3416. Have you considered, if you were desirous to regulate the speed of vessels, first of all what that speed should be, and secondly, how you could enforce the carrying any regulation as to the speed into effect; how are the public to know that you have adhered to those regulations; could that be done by having inspectors appointed at particular stations along the shore, to watch the rate at which the vessels were proceeding up and down the river?—If the master of the vessel is possessed of discretionary power, if he uses it, that will be the best regulation I should think; I hardly know in what way to explain myself better than that.

3417. *Chairman.*] Do you think it desirable there should be some alteration in the speed of steam-packets in passing through the Pool?—Certainly.

3418. What is the nature of the regulation you would suggest as being desirable, practically?—I should suppose by going at half speed, which is the rule we very much practise now within the limits prescribed; that would lessen the danger.

3419. Mr. *Warburton.*] Do you mean going five miles through the water?—It is to lessen the power of the engine.

3420. Suppose you say within certain limits you ought to go full speed, within other limits at half speed and three-quarters, and so on; how is it to be seen that the masters of vessels do go at that speed?—I am not aware how it could be done, except by different marks along the shore, by which the master might judge whether he was out of speed or not.

3421. Do you think that should be left to masters of vessels, or that there should be officers appointed to see that it was done?—I think the master ought to exercise discretion, and not to go beyond the speed which is proper, with the exception of times when a crowded Pool may be in the way, that he may want to go faster.

3422. What is the tonnage of your vessel?—One hundred and one, according to the new regulations.

3423. What is the greatest number of passengers you ever carry on board?—I think, to the best of my recollection, we have had 630.

3424. Is that too many?—I found that crowded it; it was on Whitmonday.

3425. Do you think it ought to exceed five to the ton?—Five to the ton is quite enough to go comfortably.

3426. Do you come up in the dark?—Yes; either dark or daylight.

3427. How do you carry your lights?—One under the bow, and the other at the mast head; I always exhibit two lights.

3428. Captain *Alsager.*] Do you think the steam-boats are more careful than they used to be in the river?—A great deal; if possible, I think there is more caution than ever used.

3429. *Chairman.*] To what do you attribute that?—There are a greater number of steam-boats travelling now, and it requires more caution; when I first got into steam there were but few steam-boats travelling; now there are five or six times as many.

3430. Do you think, considering the increased number of steam-boats, there is

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any increase of danger in the river to boats from them?—We do not often hear of accidents lately; very seldom indeed.

3431. Mr. *Warburton.*] Do you think, if the time as proposed by this Bill, of the speed of steam-boats were reduced to five miles an hour over the ground, the effect would be to put down the steam-boats travelling to Gravesend and Greenwich, and so on?—I think it would be too little speed.

3432. They now go as fast they choose, do not they?—Yes.

3433. If they are reduced to five miles an hour, coaches would perform the journey in much less time?—Yes; I expect a coach could do it in three-quarters of an hour; a steam-boat, according to this regulation, must be one hour.

3434. Then would they not lose the greater part of their custom?—That is very likely, being longer about it.

3435. Captain *Alsager.*] Do you think that by placing your helmsman on a platform, you would avoid a great many accidents which occur?—That is the usual form; we have a box for him to stand on in the Pool, so that he can look over the bow of the vessel.

3436. Mr. *Warburton.*] Is there anything else you wish to state to the Committee?—No.

Mr. *John Matthews*, called in; and Examined.

Mr. *J. Matthews.*

3437. *Chairman.*] YOU are solicitor to the Star Company?—I am.

3438. How long has that company been established?—Three years and upwards.

3439. Where do your boats principally navigate to?—Between Gravesend and London.

3440. How many vessels are there belonging to your company?—Five.

3441. Have you seen the Bill which has been brought into Parliament by Mr. Alderman Wood, to regulate the speed of steam-vessels, and other matters?—I have.

3442. Are there any observations you are desirous of addressing to the Committee, on any provisions in that Bill?—The Star Company have objections to some of the provisions; any regulation as to speed is considered to be objectionable by the Star Company; because in the Pool, to which the Bill principally applies, it is necessary occasionally that the steam-vessels should go at full speed, at other times to be stationary.

3443. Mr. *Warburton.*] Do you think, if there was any obstruction, five miles over the ground with the tide, is too much or too little?—Over the ground five miles would be too slow, it would be too dull.

3444. What ought to be the rate with the tide, and what the rate against the tide, over the ground?—Presuming the tide to be running three knots an hour, four miles additional speed would be sufficient; that would be seven.

3445. What against the tide?—Against the tide seven miles through the water.

3446. That would be about four miles over the ground?—Seven.

3447. Captain *Alsager.*] Do not you think the swell from a steam-boat, passing at the rate of seven knots an hour, is dangerous to small boats?—I think so, with the present construction of boats.

3448. Mr. *Warburton.*] Do you think the introduction of steam-boats has rendered the construction of other boats necessary?—Yes; I gave that opinion to a Committee of this House in the year 1831, on steam navigation.

3449. Captain *Alsager.*] Can you give the Committee any mode of regulating the speed of steam-boats?—I am afraid no certain speed can be adopted in the Pool, but it must be at the discretion of the captain.

3450. You must accelerate the speed occasionally, to escape danger?—Yes; in reference to clause 2, in page 2, which states the velocity of steam-vessels is to be checked when near any deep-loaded barge, "on pain of forfeiting for every case in which injury or damage shall ensue from his neglect or omission to do so, any sum not exceeding 10 *l.*, in addition to such sum or sums as he may be liable to pay to the person or persons sustaining such injury or damage;" it may be impossible with reference to other craft on the river, to say that a steam-vessel should be checked in her velocity, though she may be near a deep-loaded barge.

3451. You may have a danger approach at the very same moment?—There may be two evils, and we may have to choose the least. In reference to clause 4, it is proposed that an inspector shall be on board of every steam-vessel; that is objected to by the Star Steam Company, because it would bring the captain and the inspector

inspector into collision, and there would be a difference of opinion arising, and serious consequences might ensue, for at the instant requiring the skill of a nautical man to say what should be done under the circumstances, the inspector might interfere and object.

3452. The captain must consult the safety of his ship and cargo?—Yes.

3453. *Chairman.*] Your objection rests upon the supposition that the inspector has some control over the working of the ship?—Just so.

3454. If he was there merely to see that the law was complied with, your objections would not remain?—If he was merely there as an informer, my objections would not so apply.

3455. Mr. *Warburton.*] You must have then the expense of paying him his wages?—That would be objectionable, because in steam property there is now much competition, and the public have the benefit of it to its full extent; but if you were to appoint inspectors with large salaries, the charge must fall on the public; the public may inform without the necessity of such an appointment, and I do not see the utility of an inspector, if he is to have no other duty but to ascertain whether the vessel goes at a particular speed.

3456. How do you propose that the law, if there is a law, providing for the keeping within a particular speed should be enforced?—I am afraid that no specific regulation for speed can be adopted; I think steam-vessels should be put on the footing of stage-coaches, and that the magistrates should have the discretion, under all the circumstances, to adjudge whether the vessel had been navigated at an improper speed, or whether, under the circumstances, the captain was justified in what he had done; in the latter case no penalty should follow.

3457. *Chairman.*] Do you not think it desirable to give them the means of regulating the speed of steam-vessels in the Pool?—I think it is desirable they should be under some control; they frequently travel too fast in the Pool.

3458. They are in the habit of racing in the Pool, are they not?—I cannot say they are in the habit of racing in the Pool, but they frequently travel too fast there.

3459. Mr. *Warburton.*] How do you propose to remedy that?—By a penalty for furiously navigating.

3460. Do you think the appointment of inspectors at fixed stations on the Thames, would answer the purpose?—I think an information against a captain for travelling at a furious rate in the Pool would answer the purpose; because if there was no cause for his travelling fast, and an accident followed as a consequence of it, he should be punishable in a summary manner before a magistrate.

3461. Will you proceed with your observations?—In page 3, clause 5, authority is given that the orders of the inspectors shall not affect the responsibility of the person having the charge of any steam-vessel; that would be a very serious provision to enact; the captain would be liable to be transported for manslaughter, and that too by obeying the orders of another man, which would be highly objectionable.

3462. As to the regulation of the number of passengers per ton, how many are you in the habit of carrying on board your vessels per ton?—There is a great variation; it depends upon the state of the weather and the season of the year.

3463. What is the largest number you take?—I have known 700 or 800 on board a 300 tons steamer.

3464. What do you think would be a reasonable number, not to be exceeded?—There is no objection to three passengers per ton, provided the tonnage be ascertained upon the register previous to the late alteration of the law.

3465. Did you ever see them carry as many as six per ton?—Never; the greatest number I can speak to would be about 900 persons on board a steam-packet of 320 tons, about three per ton upon the old mode of measurement.

3466. By the present mode of measuring, what would it be?—Four, I should say, would be sufficient.

3467. What do you say as to the proposed mode of hanging the lights?—I think a light would be very desirable; I have frequently found when I have been on board at night (and especially one night last week) the advantage of a light immediately under the bow; but it has occurred to me that the fewer lights the better, provided there are enough to give distinguishing marks; two good lights under any circumstances would be sufficient, a particular one denoting a vessel approaching, another when she is ahead.

3468. Have you looked to the particular mode of fixing the lights?—No, I do

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not feel myself competent to that; the clause provides for three lights, and I think two lights would be much better than three; a light at the head, at the cat-head, and another at the mast.

3469. Do any further observations occur to you?—I would take the liberty of submitting that in a measure for regulating the navigation of the river Thames, and particularly embracing steam-vessels, some provision should be made for insuring public accommodation for landing and embarking in the river; an immense sum of money is paid now annually to particular individuals for the landing and embarking of the public at London, and under very inconvenient circumstances; it is frequently most incommodious, and if the Government would take that measure into its consideration and management, the public would be greatly benefited, and the proprietors of steam-vessels would very readily pay the same toll (which, by-the-bye, is enormous) to the Government as they now pay to individuals, but which would no doubt insure much better accommodation to the public.

3470. If it is important to the steam-vessels to have a landing-place, why cannot they subscribe among themselves and purchase a wharf?—At present all the property on the water-side in the immediate neighbourhood of London-bridge is in the hands of a few individuals, and any company applying for it would be unable to obtain it. The only suitable place at present is that immediately adjoining London-bridge, just below London-bridge, and called Fresh Wharf, or London-bridge Wharf; but if the wharf in front of the Custom House could be appropriated for the purpose, and a road made from Gracechurch-street or Fish-street Hill (indeed there is one now forming, I believe, that is, an improved approach), the tolls now paid for very inferior accommodation might be applied to pay the cost, and to compensate the watermen for the injury they have sustained, and enable them to provide better boats, besides being a great convenience to the public.

3471. You mean that the wharf in the front of the Custom House should be appropriated to allowing passengers to land?—I think that would be a very suitable place; it is sufficiently near the heart of the metropolis.

3472. *Chairman.*] Part of that wharf would be sufficient for the purpose, would it not?—It would be better to have the whole, but even a moiety would be sufficient.

3473. Mr. *Warburton.*] It is applied to no purpose now, is it; it is merely ornamental?—It is chiefly ornamental.

3474. Mr. *Williams.*] What do you pay for landing each passenger?—Threepence for landing and three pence for embarking; several females this morning had to land over a plank raised at an angle of 45 degrees, and then to jump down upon another steam-boat, a most difficult and inconvenient mode of landing.

3475. To what wharf do your vessels come?—To London-bridge Wharf, sometimes called Fresh Wharf.

3476. Captain *Alsager.*] Would you have the steam-boats compelled to go there if there was a Government wharf?—No; but most, if not all, would gladly resort there.

3477. Mr. *Warburton.*] You think 3 *d.* for each passenger landing and embarking would not be excessive?—No; they would willingly pay it for a public convenient landing.

3478. What do they now pay to the watermen for landing them?—I am sorry to say there is very little employment for the watermen in landing from steam-vessels; the fare used to be 4 *d.*; I think the legal fare is only 2 *d.*

3479. *Chairman.*] Do the passengers pay it or the proprietor of the boat?—The proprietor of the steam-vessel; the passengers pay it indirectly.

3480. What is the fare to Greenwich?—Nine-pence.

3481. What is the passage to Gravesend?—Eighteen-pence and 2 *s.*

3482. Out of that 3 *d.* goes to the wharf?—Yes, and the same at Gravesend; occasionally, as yesterday, the fares were reduced to 18 *d.* and in some packets to 1 *s.*; still the 3 *d.* at each end was charged.

3483. Captain *Alsager.*] Would it not be necessary to have a shed or cover to land under?—That would be convenient.

3484. Would not that disfigure the Custom House?—I think not.

3485. Have they a shed where they land now?—There is a small covering, but it is seldom or never used, for carriages are waiting for the parties in bad weather; if it is fine it is not required, of course.

3486. Though it is not the case at London-bridge Wharf, it is the case at St. Katherine's Dock Wharf that they have a covering?—It is.

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3487. The covering is wanted for the luggage, is it not?—That would not apply much to the river boats; there is very little merchandize carried by them.

3488. You would recommend the Custom House Wharf, if it could be obtained for the landing of passengers from the short packets, Gravesend, Southend, and so on?—Yes, and to Margate and Ramsgate; that would produce a revenue, according to the present rate of charge, of at least 20,000 *l.* a year.

3489. Mr. *Crawford.*] Are you aware whether all foreign vessels are not now obliged to land at the Custom House?—I am not aware of that: the Star Company pay 3,000 *l.* a year for wharfage, and it is so tempting a toll, that boats of every description are invited to resort to the London-bridge Wharf; the result is continual collision and danger, and it is anything but public accommodation.

3490. Captain *Alsager.*] Have not individuals laid out very large sums of money with the idea of passengers landing there?—It is proper they should be compensated for any outlay; the public no doubt would readily meet that.

3491. Your boats cannot go above bridge?—No; I am sorry to say they cannot, from the want of sufficient depth of water; the Woolwich boat was on the ground for an hour under London-bridge last week.

3492 Under which arch?—The one next but one to the centre.

3493. Did you ever hear of a log, called Massey's Patent Log, for ascertaining the rates of vessels?—Not that I recollect. The watermen, who have been very much injured by the introduction of steam-vessels, might have their boats rebuilt on an improved plan out of the fund which might be created by the Government taking up a public landing and embarking place.

Mr. *Joseph Miller*, called in; and Examined.

Mr. *Joseph Miller.*

3494. Mr. *Warburton.*] WHAT are you?—A manufacturer of engines for boats.

3495. Have you navigated the river in steam-boats?—Yes, a good deal.

3496. *Chairman.*] Is it possible to ascertain exactly the rate of speed of a steam-vessel by having affixed to the steam-engine an indicator, by which, on inspection, the number of revolutions per mile of the paddle-wheels can be determined?—Not without having the ships under circumstances precisely the same; all the circumstances must be precisely the same.

3497. Captain *Alsager.*] You mean the shape of the vessel?—I mean the draught of water, the power being the same and the surface of the water being always perfectly level; that is one of the greatest difficulties, the surface of the water being undulating; there is a swell raised at the bow of the vessel, and that goes more or less aft; we find it sometimes on the sides of the paddle-wheel; sometimes there is the paddle-wheel working in a hollow; the result will be that it will make a greater or less number of turns.

3498. One evolution of the paddle-wheel would propel a sharp-built vessel much faster through the water than it would a rounder built vessel?—Yes, no doubt of that; but even with the same vessel all the circumstances must be precisely the same to produce the same result.

3499. Mr. *Warburton.*] Have you attended to the provisions of the Bill brought in by Mr. Alderman Wood?—I have not seen it.

3500. Captain *Alsager.*] Can you suggest any means of regulating the speed of steam-vessels?—I see no mode but by the introduction of a log of some kind or other.

3501. Like Massey's patent log?—Yes; unless some log can be devised which can ascertain the rate; I am not aware of such a log at present.

3502. Mr. *Warburton.*] At what rate do you think the vessels navigating the Pool should be allowed to pass, with and against the tide?—It appears to me that ought to be left very much to the discretion of the persons navigating the vessels; they require a great speed frequently to place themselves out of danger.

3503. *Chairman.*] Do you think it desirable that some means should be found to prevent vessels going with that speed in the Pool which is dangerous?—It appears to me that ought to be left to the discretion of the persons navigating them; I think it might be possible to prevent their going at a dangerous rate, except in case of absolute necessity.

3504. Do you not believe that it has been the practice of steam-vessels to go at a rate in the Pool which is productive of danger?—I dare say it may have been frequently the case.

3505. Mr. *Warburton.*] What is the greatest speed at which in the Pool you think

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think they ought to be allowed to go?—It is rather difficult to say that; that is a question rather for the masters of vessels.

3506. What is the greatest number of persons per ton which a steam-vessel ought to be allowed to carry?—That I cannot answer very well.

3507. If you were ordered to see that a vessel and steam apparatus were constructed to carry a certain number of passengers, say 500 passengers, what amount of tonnage would you allow?—I should rather not answer the question, which I have not considered sufficiently; I have not turned my attention to it.

3508. Mr. *Williams.*] Are you aware whether more care has been exercised of late in navigating through the Pool than formerly?—I think there has; I know, with respect to the Star Company, the captains have had several injunctions given to them to be more careful.

3509. You are aware that there is a great difference in the speed with which different vessels go through the Pool at the present time?—Yes, there is.

3510. *Chairman.*] Is the number of vessels navigated by steam in the Pool increasing very much?—Very much.

3511. Mr. *Warburton.*] Have you attended at all to the construction of the boats?—I have.

3512. Do you think they are of a proper construction for the river since the introduction of steam navigation?—They have been very much improved of late in their construction; they have been built much sharper, and produce much less swell.

3513. Has there been an improvement in the river boats?—No, I am not aware of any change with regard to their safety.

3514. Are there any further observations you wish to make?—No, I am not aware of any. It will be an object of growing importance; the increase of steam-boats will be great, both in this country and abroad; there is an increased demand for machinery, and the increased number resorting to the Thames will make a great difference in the trade of the port, and that very shortly; that of course renders the subject a matter of much greater importance than it has hitherto been.

3515. Is the number building in the Thames considerable?—Very considerable; I believe it is quite unprecedented the number building altogether; certainly the demand for marine steam-engines is beyond that at any former period.

3516. It becomes more necessary, then, for their own safety, that there should be some regulations as to speed?—On all accounts; whether regulations for speed or stopping vessels, may be a question probably; I think it will be found that there is great difficulty in regulating the speed.

3517. You think there will be so many exceptions in consequence of the necessity of their going at an accelerated rate, to avoid danger, that it cannot be done?—I see no mode of doing it successfully.

Mr. *James Jones,* called in; and Examined.

Mr. *James Jones.*

3518. Mr. *Warburton.*] WHAT are you?—I am the engineer of St. Katherine's Dock.

3519. Are you the inventor of any machine for determining the rate at which steam-vessels go?—There is a drawing which has been laid before the Committee, that arose out of a question put to me by Sir John Hall, whether it was practicable to make use of any means by which it could be shown that the proper quantity of steam was being made use of by a steamer to give her the half speed.

3520. Are you of opinion that in the Pool the London steam-boats ought to be allowed to go only half-speed?—Unquestionably, their speed should be reduced.

3521. At what rate do you conceive they should be allowed to go over the ground, with the tide and against the tide?—That is a question which it is very difficult to answer, and I think it is very difficult to test their rate of speed; the principle on which I have gone is, that you cannot regulate them to any number of miles an hour, or it would be very difficult to do so; but if you take the quantity of steam passing from the boiler to the engines, and reduce it, the half speed produced by the engine could be approximated.

3522. Must not you occasionally allow them to put on their full quantity of steam, to prevent danger?—Unquestionably.

3523. That would increase the difficulty, would it not?—I think not.

3524. If you allow the steam-boats to go at their full speed occasionally, when there is danger approaching which they wish to avoid, does not that make the difficulty

difficulty the greater of laying down any general rule for the regulation of their speed?—I think not, because you would ascertain what would be easily ascertained, the quantity of steam passing from the boiler to the engine which would give the vessel half speed.

3525. The half speed in that case would not be sufficient; they must endeavour to put on their whole speed?—You ascertain first of all the quantity of steam necessary to give the average half speed; that being ascertained, you would set the index to show you with what quantity of steam the engine would be going at her half speed; if it was necessary, in the event of there being any difficulty, to go at greater speed, all that would be necessary would be to alter the index for the moment until the danger had passed, and then return it to the intended situation.

3526. Where you must necessarily alter the speed according to circumstances which occur, does not that render it very difficult to enforce any general rule, stating that steam-boats shall not navigate the Pool at a greater rate than that of half speed?—The indicator would at once show it to the persons on board, presuming that the passengers would feel themselves somewhat interested in the thing; it would be evident to any person whether they were using the prescribed quantity of steam or not.

3527. You think the having an index on board, without having a public officer or inspector on board, would be sufficient to insure such regulation being carried into effect?—It is difficult to say that would insure it, but that would insure the means to the passengers of knowing whether the regulation was being complied with or not.

3528. At half speed what rate would they go through the water?—The average half speed would be perhaps five or six miles an hour.

3529. Do you mean through the water?—Yes.

3530. That would be going at the rate of about eight miles an hour with the tide, and about two miles an hour against the tide, would it not, the tide running three miles an hour?—I do not quite agree in that.

3531. Do you mean five miles speed through the water?—Five miles over the ground I would say.

3532. If you go only five miles over the ground, that will be only two miles faster than the tide?—If the tide was going only three miles.

3533. That would be eight miles an hour through the water, if they were going against the tide?—Yes.

3534. Do you mean to say that this index must be put to the same point in the case of going against the tide, and in case of going with the tide, in order to ascertain that the vessel was only at half speed?—Yes, the average half speed.

3535. In the one case you make the vessel go through the water at the rate of eight miles an hour, and in the other only two miles an hour; how is it possible you could get the same indication from that proposed index?—I am afraid I do not make myself clearly understood; if you take the full speed of a vessel, you may take the average half speed of a vessel, the index might be set to that.

3536. Do not you see that according to the rule laid down in the one case, you must be going through the water at eight miles an hour, and two miles in the other; that you require a different strength of steam, and that therefore the index must give an indication of a much greater power of steam in the one than the other, that you cannot possibly take any average of the kind you propose?—I think you will arrive nearly at the average; you must give something away where you were going against the stream, and you would gain something when you were going with the stream.

3537. Is there any wharf attached to the St. Katherine's Dock where the steam passengers land?—There is.

3538. What is charged per head for landing?—I cannot say.

Mr. *Thomas Forrest*, called in; and Examined.

3539. Mr. *Warburton.*] WHAT are you?—I am a boat-builder.

3540. Where do you live?—At Stone-Stairs, Ratcliffe.

3541. Do you build boats for navigating the Thames below bridge or above bridge?—For below bridge; we are more in the ship-boat line, but at times we do all sorts of business in that line.

3542. What opinion have you formed as to the fitness of the wherries now built, and that navigate the Thames below bridge, being suited to that navigation

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since the introduction of steam-boats?—I am of opinion there are many not fit to take the number of passengers in them that they are licensed to do.

3543. Do you know of any change of late in the form of the boats?—No, none whatever.

3544. They remain the same as they were before the introduction of steam navigation below bridge?—Yes, they may get an increase in size when a new one is built, but there are very few new ones built.

3545. Do you think those in use are fit for that navigation?—No.

3546. Have you seen a specification for a boat which was in Sir John Hall's possession?—I saw it but a few minutes; I have a specification with me.

3547. What is your opinion of them?—I have made one on the plan of a wherry determined by the committee of steam-boat proprietors, meeting at the London Tavern, I think, and one on a plan proposed by one of the bye-laws by the master, wardens and assistants of the Watermen's Company; they are two very different boats; very different in form.

3548. State your observations upon them?—I have also a plan I have drawn myself, giving the different form of those two in contradistinction to the common wherry we have at the present time. I objected to the one proposed by the Watermen's Company; there is so much difference forward; it will make them so much heavier, and I cannot see any service in that. I think the plan proposed by the committee would be a very great advantage; there is a raised wash-board, which would make the boat about three inches deeper, and at the same time it is only put where the company sit, and not forward; the boat naturally drops where the company sit, and she rather rises at the other end.

3549. Would it require much more labour to pull the boat recommended by the committee than the present wherry?—No, I should think not a great deal.

3550. She would be completely under command with one man?—Yes, I think she would.

3551. And would be much safer?—Yes.

3552. What would be the additional expense of building such a boat?—About 2 *l.*; the proposition is to make her shorter, and to give her a square stern.

3553. Are the wherries below bridge built of Canada oak?—Of English oak principally.

3554. What is the cost of building the present wherry?—About 23 *l.* to 25 *l.*; about 1 *l.* a foot; there is a little competition which reduces it to that.

3555. This would be about 10 per cent. extra?—No, it would not; when we consider the boat being reduced in length, it would be about the same price. Here is the proposition, which the boat-builders who have looked at it agree to; first to carry eight, then to carry six, the other to carry four; the largest size would be built for 24 *l.*, the second 23 *l.*, the smaller one 22 *l.*

3556. You think that would give great additional safety?—Yes; some of our men below bridge have adopted this plan of putting an increased wash-board.

3557. It is proposed that should be regularly built in as part of the wherry?—Yes.

3558. Mr. Alderman *Wood.*] Could a man row those boats under Blackfriars or London Bridge against tide?—I should say that they could; there would be more difficulty, no doubt.

3559. Do you know that they can scarcely get through with the present wherries now?—Yes, I know that it is difficult, if there is a strong stream of wind under the arches.

3560. Do you think that one man would be able to row one of your boats?—He would do it, with increased labour, in my opinion.

3561. Mr. *Warburton.*] Would those be well suited to the ferrying workmen across, the carpenters and artisans along shore?—Those would be of great advantage in our part of the world, and among the coal ships.

3562. Mr. Alderman *Wood.*] Do you think those would stand against any steam-vessel, going at the rate of 10 or 12 knots an hour?—Yes. I think this is the smallest size which can be adopted, and if the watermen wished to have their boats larger, that larger size might be adopted; and if they found that people were better satisfied with a larger boat, they would probably increase the size of their boats.

3563. Do you know how they are to get the money for them?—I have not heard that.

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3564. Do you think that one out of 50 of the watermen would pay you the price of 25 *l.* for a boat?—No, I doubt very much whether they could now.

3565. Mr. *Warburton.*] How long does a wherry last?—Eight or 10 years; they are almost rebuilt before they give them up.

3566. You would recommend that all the newly-built should be built on this construction?—Yes.

3567. In the course of four years half the wherries now used would be worn out?—Perhaps I am rather under the mark; I dare say that I am under the mark in fixing that time, they do so much to the boats before they are worn out.

3568. Mr. *Young.*] Are not a considerable number of new wherries annually built?—Not in our part of the country; I cannot say what number there may be above the bridge.

3569. Are not many of the boats built for the navigation below bridge built above bridge?—No, there are a great many of them built below bridge.

3570. Are there a great number annually built?—I should say not one annually at every stairs in the river.

3571. There is a considerable number of new boats that ply upon the river supplied from prize wherries?—Yes, there are a great many.

3572. Are they not of the lightest possible description of boat?—No, the boats built as prizes are not so; they are generally large-sized boats; the last given, the week before last, at the stairs close to me, was a regular skiff; but I understood this morning that as soon as the boat was gained by the waterman he put her up to sale, and she is now in the hands of another person; whether that is because he found her too heavy I cannot say.

3573. Do you know whether the person who has bought her is a waterman?—He is a lighterman; she will be employed about the ships.

3574. Mr. Alderman *Wood.*] How many does she carry?—She was completed for eight passengers; the skiffs are more buoyant, and there is a little difference in the form of the head. [*The Witness delivered in the plan and drawings referred to by him. Vide* Appendix.]

Mr. *John Fisher*, called in; and Examined.

Mr. *John Fisher.*

3575. Mr. *Warburton.*] YOU are foreman to Mr. Lyon?—I am.

3576. What is Mr. Lyon?—A boat-builder, at Stangate, Lambeth.

3577. Does Mr. Lyon build boats principally for the watermen above or below bridge?—For both.

3578. Looking to the new wherries now in use below bridge, do you think they are safe, considering the roughness occasionally that arises from steam-boats passing up and down?—Not above one-fourth of them.

3579. Has there been any alteration in them lately, to make them safer than they were before?—Very little.

3580. Why do you draw the distinction of three-fourths that you think are not safe, and one-fourth that you think are?—Because the three-fourths were built before the Watermen's Act.

3581. Do you think those built since are safe?—Much safer than the others.

3582. Are they suited to the navigation of the river below bridge?—There wants some little improvement; they should be a little wider and a little deeper.

3583. Have you seen the plans that have been recommended by the Watermen's Company and by the committee of steam proprietors?—I have. I consider the plan given for the largest sized boat, in fact, as it is represented, as too large for skiffs.

3584. Is that the committee's plan?—It is that recommended by the Watermen's Company.

3585. You mean the largest size recommended by the Watermen's Company?—Yes, it is the plan sent to Mr. Lyon by the committee.

3586. What is the plan you would recommend?—The small plan.

3587. Had you any conversation with the last witness called in, as to the form of the boat you would think advisable?—Yes.

3588. Do you agree with him?—No, not exactly; my opinion is that the smallest of those two plans is large enough; the one shows the plan recommended by the Watermen's Company, the other the plan recommended by the committee.

3589. You think the plan recommended by the committee is large enough?—Yes.

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3590. Mr. Alderman *Wood.*] How many can that take?—The smallest boat would carry eight people.

3591. Would she live safely when a steamer was passing along at 10 miles an hour?—She would live, but not so well as the larger boat.

3592. Mr. *Young.*] Would she be materially safer than the present wherries?—Yes.

3593. Mr. *Warburton.*] Can she be well conducted by a single man?—He would have great difficulty to row eight people through either of the bridges, such as Blackfriars, Waterloo or Westminster, at certain times of the tide.

3594. Would she do for the ordinary ferrying work?—Yes, she would do for the ordinary ferrying work, below in particular.

3595. You would not think it necessary to have that boat above bridge?—A less boat would do there.

3596. There is no occasion to alter the present wherry in use on the river above bridge?—No.

3597. Mr. Alderman *Wood.*] What would be the price of that boat?—£. 24.

3598. Mr. *Warburton.*] The price for that now in use below bridge would be what?—£. 23; there must be an extra strake, extra material, and that would cost about 1 *l.* more.

3599. How many years does a boat below bridge last?—Seven or eight, or with care nine or ten years.

3600. Of what timber are they built?—English oak.

3601. The best above bridge are built of wainscot, are they not?—No, English oak.

3602. Are not gentlemen's boats sometimes built of wainscot?—No, it is very rare that we have any built of wainscot; we have built but one in my remembrance.

3603. What do the boats built of wainscot cost?—We make no difference in the price, wainscot is as dear as English oak.

3604. Mr. Alderman *Wood.*] You think it would be impossible for one man to get through the bridges with such a boat as that you recommend for the work below bridge?—It would be impossible in some states of the tide.

3605. It happens that they cannot get through now with the light wherries that they have?—Yes, we are so close to Westminster-bridge we have continual proofs of that.

3606. Mr. *Warburton.*] Still the difficulty of strong winds does not prevent your considering that for the ordinary work below bridge the boat you have been speaking of is in a form well calculated for that description of work?—Yes.

3607. Mr. *Young.*] Do you build a considerable number of wherries in the course of the year?—Yes, chiefly light wherries for gentlemen's use; but we build prize boats, and we build for watermen too.

3608. Mr. Alderman *Wood.*] Do they build many now?—Very few of late.

3609. Have they the means of paying for a boat?—Where there is one that can pay there are 50 that cannot; he must be very economical and have something besides what he gets by his boat.

3610. Mr. *Young.*] Are there a considerable number of prize boats given in the year?—There are not above one-third of what there used to be.

3611. How many are given?—Taking it from Gravesend to Windsor, not above 25.

3612. Mr. *Warburton.*] Do you build steam-boats as well?—Yes, craft of every description.

3613. Upon the whole, looking at the advantages and disadvantages of the boat you speak of, you think it would be an improvement if a boat of that description was introduced into use below bridge?—Yes, as a wherry, not a skiff, with a square stern and a wash-board as far as the main rullock; that is the part which is the lowest in the water, and where they ship the water; all wash-board beyond that would be an impediment in working. A wherry is propelled with much less labour than a skiff; we have a skiff that comes very near the dimensions of the Watermen's Company, 22 ft. long, 18 ft. upon the keel, 5 ft. 2 in. wide, and 2 ft. deep; the Watermen's Company's boats are 18 ft. on the keel, which constitutes them 22 ft. in length, and 5 ft. 4 in. wide. Mr. Lyon had as many people as he thought he could stow safely in that boat; I was one of them, one of 19; and that boat had 7 in. freeboard after that; we weighed two tons dead weight in her; therefore I consider a boat of the Watermen's dimensions, 5 ft. 4 in., too wide, too large,

and

and more than one man could well get through the water comfortably with; if a man cannot get her through easily, she is apt to get athwart the passage, and cause an accident.

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Charles Jones, Esq. called in; and Examined.

3614. *Chairman.*] YOU are the solicitor of the Admiralty?—I am.

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3615. Has your attention been turned to the state of the various jurisdictions on the river Thames?—It has.

3616. Are you able to give to the Committee any information upon the limits and nature of those jurisdictions?—I submit this paper to the consideration of the Committee.—[*The same was read.*]

THE Crown, by its prerogative, has the property in the sea, and in all navigable rivers which have the flux and reflux of the sea, and in every arm of the sea or navigable river, so high as the sea flows; and this property extends as well to the soil as the water.

At common law, and by the statute 1 Elizabeth, c. 17, s. 6, the Lord High Admiral has the conservancy of the great and navigable rivers. This is confirmed by the Statute 54 Geo. 3, c. 159.

But the corporation of London has had for centuries past, by prescription, or by grant from the Crown, the conservation and regulation of the river Thames. The first charter, however, which contains any express grant of the conservancy of the river is that of King James 1st, dated 20th August, 1606, which recites that the mayor, commonalty and citizens of London, time out of mind, have had and exercised the office of bailiff and conservator of the water of Thames; and it then proceeds to grant to them that office, and that they may exercise and execute the same from time to time for ever, in, upon or about the same water of Thames; that is to say, from the bridge of Staines to the bridge of London, and from thence to a certain place called Yenland, otherwise Yenleat, towards the sea and towards the east, and Medway, and in the port of the city of London aforesaid, and upon whatsoever bank, shore and wharf of the same water of Thames, within the limits and bounds aforesaid, in, upon and about every one of the same, and to receive, collect and enjoy all and singular wages, rewards, fees and profits, to the same office of bailiff pertaining, to the proper use of the said mayor, commonalty and citizens.

This charter, therefore, evidently vests in the corporation the duty or office of conservator of the river; and if that duty had been at all times properly exercised by the corporation, to the advantage of the navigation of the river, and of the public at large, no interference with it would have arisen on the part of the Crown, or of the Lord High Admiral; but it is notorious, and the records of the Court of Conservancy, if they could be referred to, would prove, that under colour of this charter, fines and rents have been obtained by the corporation, from all persons who would submit to pay them, for licences to make wharfs or embankments on the shores of the river, without regard to the main part of its duty; namely, the conservancy of the navigation, and the prevention of works tending, by their want of uniformity with the rest of the shore, to produce banks and shoals in the bed of the river. That such projecting wharfs and embankments exist, and have been permitted to be formed, is obvious to every one passing down the river; and their mischievous effects, by producing banks and shoals, can be proved by Captain Beaufort, the hydrographer of the Admiralty, and Captain Bullock, the officer appointed by the Admiralty to survey the river.

A very glaring instance of the abuse of the charter, in this respect, occurred in the year 1811. Anthony Peck and others, were indicted, on the prosecution of the corporation of London, for a nuisance, in making a wharf and embankment on the shore of the river at Gravesend, and the trial came on before Lord Ellenborough and a special jury, at the summer assizes of that year, at Maidstone. The nuisance was proved by the city officers, and the answer of the defendants to the charge was, that the corporation had offered to allow the work to proceed, provided the defendants would pay them a rent for it, which was refused, and the prosecution was the result of that refusal. The judge and jury thought this a sufficient answer, and the defendants were acquitted.

This practice of requiring a rent to be paid to the corporation, as a licence for erections on the shores of the river, is understood to be universal, and has given a colour to a claim set up by the corporation to the soil of the river, to which it is apprehended they are not in a condition to show the least legal title. It has, however, the effect of obtaining an acknowledgment from the several parties to whom these licences have been granted, of a title in the corporation; but this cannot prevail against the Crown or the public.

A person is now in treaty with the commissioners of Greenwich Hospital for a lease of some ground adjoining the river, which he proposes to improve by constructing a wharf upon it, in front of the river, for which he says he has obtained a licence from the corporation, on payment of a fine, and an annual rent of two guineas. This wharf would evidently be an improvement of the shore, and can certainly produce no detriment to the navigation; but still the conservators of that navigation require a premium and rent for a licence to erect it, and thereby establish, as against the man, who thus becomes their tenant, a title to the soil on which it is erected.

Thus it may be seen, that the main use to which this charter of conservation is applied, is to increase the revenues of the corporation, at the expense of the Crown and of the

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public, while the principal end of the charter is lost sight of. It is true the charter grants the office, with its wages, rewards, fees, and profits, but rents are not specified; nor could it have been the intention of the Crown to grant the soil or freehold, out of which alone a rent is derivable, since the right of raising the soil of the river is granted by another charter, and confirmed by Act of Parliament, to the corporation of the Trinity House, which, if the soil had been previously vested in the corporation of London, would not have been the case.

About 10 years since numerous complaints were made to the Naval Department of the state in which the navigation of the river was suffered to be, from the inattention of the Court of Conservancy, or rather of their harbour-masters, with whose consent ships were allowed to take any berths that suited them, without regard to the general convenience; and it was especially stated that they were allowed to moor in such numbers near the King's Victualling-yard at Deptford, as to inconvenience the approach to that establishment. Remonstrance, without effect, had been made to the harbour-masters, who answered that they had no power to administer a remedy; and at length, in 1827, His present Majesty, then Lord High Admiral, under the authority of the 54 Geo. 3, c. 159, directed a set of Rules and Regulations for the navigation of the river to be prepared, which was accordingly done by the solicitor of the Admiralty. These Rules, which prescribe the proper places for the mooring and anchoring of ships, from London Bridge to the Nore, were printed and publicly pasted up, in different places on the shore of the river, and appear to have given general satisfaction.

Recently, it has been considered necessary that a large shoal or bank which, through inattention to the conservation of the river, has grown up fronting the upper part of Woolwich dock-yard, should be removed, to facilitate an entry into the docks, and application was accordingly made by the Admiralty to the corporation, as conservator of the navigation of the river, to remove it; the answer to which was, that the corporation had no funds for such a purpose. So that, although they derive a considerable revenue from this office, they decline to expend anything in improving the navigation; looking only to its profits, and without any regard to its relative duties.

This neglect of the shores of the river, has induced the Admiralty of late years to interfere in all Bills in Parliament, which, by authorizing piers, wharfs or quays, may in manner affect ports and navigable rivers, by requiring the introduction of a clause providing that the works shall be subject to the superintendence of that department; and this interference of the Admiralty in works on the shores of the Thames has given umbrage to the corporation, as a supposed infringement of their rights and privileges; but if they (as experience has shown) will not duly execute their duty, they cannot justly complain of the interference of the Crown, whose officer as conservator they are, and from whose authority they derive their office.

This controlling power of the Crown is unquestionable; for Lord Hale, in his Treatise on the Ports of the Sea, expressly says, that "although a subject may have the property of a navigable river, part of a port, yet that the King hath a right of empire or government over it in reference to the safety of the kingdom, and that the people have a public interest, a *jus publicum*, of passage and repassage, which must not be obstructed by nuisances, for the *jus privatum* of the owner is charged with that *jus publicum* which belongs to the King's subjects, as the soil of an highway is; which, though in point of property, it may be a private man's freehold, yet it is charged with a public interest of the people which may not be prejudiced or damnified." This doctrine, which from its source no one will doubt, applies with more force to the corporation of London, who have not the freehold of the river, but are merely the officer of the Crown, constituted to preserve its navigation.

And it may be clearly inferred from the charter itself, that it was not the intention of the Crown to part with this legal and controlling power, for after granting the office of conservator, it proceeds to grant to the corporation the office of measuring coals and grain, with the wages, fees, &c. of that office, which are to be taken without any hindrance from the King, or his Admiral, but no such exemptory words accompany the grant of the conservancy of the river.

3617. Are there any observations you are desirous of adding to the paper you have submitted to the Committee?—We lately wanted a shoal removed from opposite Woolwich-yard, called Cooper's Shelf; we applied to the Trinity-house to remove it as ballast; the Trinity-house answered, We are ready to take what is ballast, but we will have nothing to do with the mud. The Admiralty applied, under my suggestion, to the city to remove it, as conservator of the river; the answer of the city was, we have no funds; and I remember some 18 or 20 years ago, it cost the public an immense sum to remove the mud that accumulated at that period through obstructions. I believe it cost the public 6,000 *l.* a year, and we found that the workmen employed went at night and threw into the river all they had taken out in the day, to continue the work.

3618. Mr. *Warburton.*] Did you inquire whether the city had any funds arising out of rents or endowments given them for the purpose of keeping the river

river in order?—I am not aware of any endowment; I once asked one of their officers what became of the rents they exacted, and he said they had other means of disposing of them.

3619. Mr. *Williams.*] Do you consider that the corporation have a legal right to receive money for the erection of jetties or projections into the river, applying it to their own use?—Clearly not; it is a most illegal mode of raising money; I conceive it to be an extortion upon the public, under colour of a charter giving them the government of the navigation.

3620. Mr. *Warburton.*] Do you happen to know that for all the piles they permit parties to drive opposite their wharfs, for the purpose of fastening to, they demand a rent?—I was not aware of that; it could be only on the pretence of their being lords of the soil, which they are not.

3621. Mr. *Williams.*] You conceive that money so received ought to be applied to the purposes of improving the navigation of the river?—I consider first that it ought not to be received at all; that it is an extortion of money from the public.

3622. Mr. *Warburton.*] Do you know they have been in the habit of indicting parties for obstructions in the river?—Yes, I was present at the trial in the year 1811, to which I have referred.

3623. What do you apprehend would be the expense to a party indicted, of the most ordinary indictment of that kind?—It must depend on the nature of the defence. A case like that of Anthony Peck, brought to trial at the assizes, must have been productive of considerable expense to the defendants, where the question was, whether the embankment was a nuisance or not, a point on which I apprehend the witnesses competent to speak must be engineers and men of science, whose attendance cannot be obtained but at great cost, and I should doubt whether the defendants, though acquitted, escaped at a less expense than 150 *l.* or 200 *l.* Prosecutions of this nature must, if carried to trial, produce great expense to the defendants, with whom it would consequently become a consideration whether to submit to the fine and rent demanded, or to a prosecution, the costs of defending which, though successful, must fall upon them.

3624. Supposing the party makes no defence, what must be the expense?—Then it must be very little.

3625. Would it be 40 *l.* or 50 *l.*?—I should think it would; but that would depend upon the advice he took. If the defendants made no defence, judgment would pass against them, which would place them in a still worse situation, at the mercy of their prosecutors.

3626. *Chairman.*] Did the corporation acquiesce in the right of the Admiralty to frame regulations such as you have described?—I suggested to the Admiralty that to avoid any collision with the city, it would be as well to communicate those regulations, framed by me, and which I now produce, to the Court of Conservancy. They were laid before the Court of Conservancy, and I believe were adopted.

3627. Do you mean to say that the Admiralty conceived themselves authorized to frame those regulations, and to oblige the Court of Conservancy to carry them into effect, or that they only suggested them to the Court of Conservancy as proper for them to adopt?—The intention was, that the Admiralty should prepare them and carry them into effect; it was in consequence of not being able to get any assistance upon the subject, I was directed to prepare those rules and regulations; it had been considered in Lord Melville's time, that if the city would not do its duty, the Crown must do their duty.

3628. You stated as your opinion, that the Board of Admiralty would have a right to control the exercise of the power of conservancy by the corporation of London; in all cases in which they may consider that those powers have not been duly carried into effect, with a view to the proper state of the river?—I certainly think so; when I say the Admiralty, I mean the Crown, acting not for its own benefit, but for the benefit of the public at large.

3629. The Crown would act through the Board of Admiralty?—Of course it would, through the Lord High Admiral; but I conceive the Crown has a power over all its public servants to compel the performance of duty, and to see that the subject executes his duty properly; that is my notion of the power of the Crown.

Veneris, 5° die Augusti, 1836.

MEMBERS PRESENT.

Mr. Angerstein.	Mr. Warburton.
Mr. Labouchere.	The Lord Mayor.
Captain Alsager.	Mr. Alderman Wood.

MR. ANGERSTEIN, IN THE CHAIR.

Captain *Francis Beaufort,* R.N, called in; and further Examined.

Captain *F. Beaufort,* R.N.

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3630. The *Lord Mayor.*] YOU were examined on the 1st of this month before this Committee?—Yes, I was.

3631. You stated in your evidence that there were a great number of nuisances existing in the river Thames, consisting of jetties, piers and shoals; do you know that from your own observation?—More from examination of the survey than from any other source.

3632. Will you name to the Committee any shoal, jetty or pier, which you consider to be a nuisance?—If the Committee give me time to look at the charts, I will name several.

3633. Were you not prepared to state this before?—If I had been informed on what points the Committee were desirous of my opinions, I should have been prepared to point out the numerous jetties and irregularities which ought to be got rid of.

3634. Can you point out any one which you conceive to be a nuisance; will you name any shoal?—There are two shoals off Woolwich, Cooper's and Charlton Shelves. I cannot now give the names of them all.

3635. Then the Committee gather from what you said just now, that you are aware of that inequality in the banks of the river?—Yes.

3636. Have you ever turned your attention to the necessity of jetties, as a convenience, and as essential for the commerce of the port of London?—Certainly jetties are necessary for the convenience and commerce of London, and, if judiciously placed, would be of no mischief to the river.

3637. And yet of those jetties which now exist, and which you have declared to be a nuisance, you are unable to point out any one?—I should state that I came to give evidence upon the general question, and I did not understand that I should be examined upon those particular points that I am now asked about; but I am quite ready to go and make myself master of the subject.

3638. Mr. Alderman *Wood.*] Is it your opinion if there were embankments upon the river on each side, from Gravesend to Staines, that it would be beneficial to the navigation as well as to the trade? You spoke of jetties being unequal, and therefore a nuisance; but supposing that those jetties were made by solid embankments or by measurement, and that they were equal throughout the river, would that be a great improvement?—If they were in the nature of wharfs, I think that they should be so placed on either side of the river, as that the course of the tide would sweep them clean, so as to enable vessels to come alongside of them.

3639. Then you are not of opinion that there being a general embankment on both sides would be useful?—No, I think it would not; even the properly placing a single embankment depends much upon local circumstances.

3640. But suppose that they were made corresponding with each other for the loading and unloading of vessels, barges, &c., would it at all inconvenience the navigation?—Not if the wharfs themselves were made parallel to the edge of the river, taking wharfs to be in contradistinction to jetties, which, by projecting into the stream, arrest the mud and impede the navigation. Wharfs can never be injurious to the navigation of the river, whether they answer the purpose of trade or not.

3641. Would they deepen the river?—I do not apprehend that they would deepen the river generally in its present breadth; a single wharf, where well placed, would deepen the river along its face if the tide were sent along it, but by those means the other side of a broad river will become shoaler.

3642. The

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3642. The question referred to an embankment on both sides of the river?—On the convex side it would be useless for that purpose.

3643. Have you seen the report of Sir John Rennie and Mr. Milne upon their inspection of the river from Gravesend to Staines?—No. If I had known that the Committee wished to examine me upon those particulars, I would have gone to the places and made myself acquainted with the subject.

3644. The *Lord Mayor.*] In your evidence you have stated that there are several nuisances existing, amongst others the floating pier at Greenwich, which creates an obstruction to the navigation of the river; do you know of your own knowledge that the pier occasions an obstruction to the navigation of the river?—I did not see it obstruct the navigation, for I saw it at low-water only, when the barges were high and dry, but I was shocked at its appearance in such a frequented part of the river. Certainly three long clumsy barges of that sort running out on-end into the stream must impede the navigation at high water, because the outward barge is moored there, and therefore all the small fry that would otherwise pass inside of her are prevented so doing.

3645. Are you not aware that as the tide flows and ebbs the barge goes nearer into the shore or farther into the stream, that it is not a fixture?—No, I know nothing about their management, but I hope to see them speedily removed.

3646. Is she not daily moved with the ebbing and flowing of the tide?—I cannot say; but they are prejudicial to the river in another point of view, as they take the ground at half tide, and therefore they arrest the passage of the mud and sand.

3647. Are you aware that she ever takes the ground?—Yes, for I saw them all on the ground.

3648. *Chairman.*] Do you of your own knowledge know how high the hard-ways upon the sides of the river are ranged above the general level of what is considered the natural base of the river?—Certainly, of my own knowledge.

3649. To what extent?—A few inches, which is sufficient for the purpose of landing, because they are carried down the slope of the bank till they meet the river.

3650. You do not know the average number of inches that they are raised?—Whether six inches or a foot the effect is the same; and as fast as the mud accumulates they are obliged to be raised by additional layers of gravel, and therefore carried further out, for as an inclined plane is increased in height, so it must project the further.

3651. The *Lord Mayor.*] Are the Committee to understand that those hard-ways are replenished with a layer of gravel as a turnpike road is?—Yes, they are continually raised by gravel or other materials, so that as the bank increases that breadth of hard-way is projected further and further out.

3652. Capt. *Alsager.*] You mentioned the method which the Trinity-house resort to in removing ballast, that they scooped it out in hollows, which very soon filled up with mud or other deposit?—I did.

3653. You are perfectly aware that to the Trinity-house the mud is of no use, and would be a commodity which it would be impossible for them to get rid of?—Certainly.

3654. You have no reason to suppose that there would be any objection made by the Trinity corporation, provided there were barges at hand, to deliver the mud as it is lifted, into the barges?—In every communication I have had with the Trinity-house I have always found them disposed to do what was right, and in this case they have told me that they would cheerfully dispose of the mud in the manner you have suggested, or take it away themselves if it did not cost them so much.

3655. Mr. *Warburton.*] But if they find they are raising mud instead of gravel they cease to raise it?—They do; and then there is a hollow left which is rapidly filled up again.

Charles Jones, Esq., called in; and further Examined.

C. Jones, Esq.

3656. The *Lord Mayor.*] YOU were examined a few days since before this Committee?—On Tuesday last.

3657. You submitted a paper to this Committee, and in the clause of that paper marked letter (B.) you stated that at common law and by the statute of the 1st of Elizabeth, c. 17, s. 6, the Lord High Admiral has the

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conservancy of the great and navigable rivers?—I did; I stated it as my opinion.

3658. When you referred to that statute and delivered it in to the Committee, did you read the whole of that statute?—Not of the statute certainly; I had prepared a paper, and I stated what I take to be law from a book which is unquestionable law, Comyn's Digest.

3659. Will you have the goodness to look at the 1st of Elizabeth, 17th chapter, and the 6th section, to which you have referred, and read it to the Committee?—"Be it further ordained by authority aforesaid, That the Lord Admiral of England and the Mayor of the city of London for the time being, and all and every other person and persons, bodies politic and corporate, which by grant or other lawful ways or means lawfully have or ought to have any conservation or preservation of any rivers, streams or water, or punishments and corrections of offences committed in any of them, shall have full power and authority, by virtue of this Act, to enquire of all the offences to be committed and done contrary to the effect and true meaning of this Act." I qualified what I said by adding, that the corporation of London have the conservancy of the river Thames; that by charter they have expressly; and as far as I am concerned I have no desire to dispute that title.

3660. Mr. *Warburton.*] They have the conservancy, but not the title to the land?—That in law, I must say, they cannot have.

3661. The *Lord Mayor.*] Will you have the goodness to read the 12th section of the same statute?—"Saving always to all and every person or persons, bodies politic and corporate, and every of them, all such right, title, interest, claim, privilege and conservation and enquiry, and punishment of and for any the offences aforesaid, as they or any of them lawfully have and enjoy, or of right ought to have and enjoy, by any manner of means, anything in this Act to the contrary notwithstanding." That is the general saving clause in all statutes. I submit my opinion that in law the corporation of London have the conservancy of the river Thames; I do not dispute it; it is what I have laid down in my paper, and I show their title to it. I was desired on my examination on Tuesday to produce the rules and regulations of the Lord High Admiral, and I have brought them with me.

[*The Witness delivered in the same.*]

3662. The *Lord Mayor.*] Were you solicitor at the Admiralty at that time?—No, I was the agent of the solicitor, and he being in ill health, everything was committed to me. I was appointed the solicitor about the end of the same year.

3663. Do you know that when that order was promulgated, it was with the consent of the Lord Mayor of London?—I have stated that at my suggestion it was sent to the court of conservancy before it was published.

3664. Do not you know that it could not be carried into effect without the consent of the court of conservancy?—That is a question of law upon which, if I am asked my opinion, I will give it. My opinion is, that the Lord High Admiral had a right to do it. I will tell the Committee how this arose: complaints were made to the Admiralty of the manner in which the vessels were suffered to moor in the river Thames; it was represented to them that those complaints had been made to the harbour-master, and to those in authority in the river Thames, and that they stated that they could give them no remedy.

3665. Do you know of your own knowledge that any representation or complaint of those nuisances was ever made to the Lord Mayor for the time being, or the navigation committee?—Not of my own knowledge.

3666. Do you know that the Admiralty made any complaint to the conservancy upon the subject?—Without looking into the papers of the Admiralty it would be impossible for me to answer that question.

3667. Then, when you state in your evidence, that for 10 years numerous complaints were made upon the subject, you mean that they were made to the Admiralty, not to the court of conservancy?—Certainly not to the court of conservancy; I have not so stated.

3668. Nor did the Admiralty make any complaint to the court of conservancy?—That I do not know; I remember having a conversation with Lord Melville, then first Lord of the Admiralty, upon the subject; he sent for me

me to consult me about it, in consequence of the complaints made to him, and he asked me what was to be done. I answered that the city were the conservators of the river Thames; but he said, "If the city will not do their duty, we must." That was his reply; and then he gave directions for the preparation of rules and regulations.

3669. Mr. *Warburton.*] Are those the rules which were afterwards promulgated, and had been prepared previous to the Lord High Admiral coming in?—Yes.

3670. The *Lord Mayor.*] They were made under the authority of the 54th of George the Third, chapter 159, section 28?—They were certainly under that authority.

3671. And which Act reserves all the rights to the court of conservancy?—It reserves all rights, I believe, to corporate bodies; and it was upon that ground that I suggested that those rules and regulations should be sent to the court of conservancy, and I believe that they were so sent and approved of by the court of conservancy.

3672. Then are the Committee to understand that you are of opinion, as a legal man, that the Lord Mayor of London for the time being is conservator for the river Thames?—Unquestionably.

3673. But you are of opinion that the conservator for the river Thames does not possess the right of the soil?—Certainly that is my opinion; that is, as far as I have been able to discover.

3674. You have spoken in your evidence of a suit instituted in 1811 by the corporation of London against Anthony Peck and others?—Yes, I have; I was present at that trial.

3675. Are you quite sure that the thing went to trial?—I am speaking from a recollection of 25 years, when I say that it was "Anthony Peck and others;" I recollect, however, being present at the trial of an indictment by the corporation against certain persons at Gravesend, for erecting an embankment and wharf there, and I lately applied to the Crown-office to know the name, and I got the name in that way; I did not remember the names of the parties.

3676. But independent of the circumstance, whether it was the trial of an indictment against Anthony Peck and others, your recollection is clear that a suit instituted by the corporation of London in 1811 was carried to trial?—I am sure I can hardly deceive myself; I am speaking from the recollection of 25 years; having a recollection of that trial, I wrote to Mr. Dealtry of the Crown-office, telling him that I remembered being present at such a trial, and I requested him to give me the names of the defendants, and he writes me they were Anthony Peck and others, and that they were acquitted, and my memory must have deceived me grossly if I am mistaken upon it, but I lay no stress upon it; but throughout I lay down as a principle, that the conservancy of the river is by law vested in the corporation.

3677. Mr. *Warburton.*] If on referring these regulations from the Lord High Admiral to the court of conservancy, the court of conservancy had refused or neglected to approve of them and to see them carried into execution, should you have been prepared to have advised the Admiralty that they should endeavour to carry them into effect without waiting for the approval of the court of conservancy?—I believe that they would not have asked me that, for I had expressed my doubts to Lord Melville, the First Lord of the Admiralty, and his reply was, "If the city will not do their duty, we must."

3678. Therefore they had made up their minds upon that subject?—Yes.

3679. Your recollection is quite clear upon that?—It is.

3680. The *Lord Mayor.*] But your recollection does not serve you as to whether when complaints were made to Lord Melville as head of the Admiralty, any of those complaints were represented to the Lord Mayor or the court of conservancy?—No.

3681. *Chairman.*] Is there any person now in the Admiralty through whom the communication would have passed?—The secretary of the Admiralty; the correspondence of the Admiralty would have shown that. I should state that I believe the complaints came from the Navy Board to the Admiralty; I do not know whether they were represented to the Lord Mayor.

3682. The *Lord Mayor.*] Were the complaints made by the mercantile interests of the country?—I did not see the papers, but I think they came from the Navy Board; this, according to my recollection, was the fact. They complained

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plained of the obstruction to the mooring of the King's ships, and the approaches to the different dock-yards, by there being no regulation as to the placing of the ships.

3683. *Chairman.*] The rules were applicable to the ships below the Pool?—Yes.

3684. The *Lord Mayor.*] You are aware that an application was made to Parliament for a pier at Greenwich lately?—I am.

3685. Are you aware that the Admiralty stopped the progress of that Bill in the House of Commons for a short time?—I understood that the stopping of the progress arose from the city; that they objected, but it is only an idea; I attended Lord Minto when Mr. Alderman Wood came there, and that is all I know upon the subject.

3686. You did not prepare, as solicitor for the Admiralty, any clause for insertion in that Bill?—I have been in the habit of late of preparing so many clauses of that description, that I can hardly recollect whether I did or not, but there is a general form of clause lately adopted. The obstructions, not in the river alone, but in all the ports, are such that I have prepared a general clause, and the Admiralty are now determined, as far as their influence extends, not to let the Bill pass unless a clause of that nature is introduced, namely, that the works below high-water mark shall be carried on in such a manner as shall be approved of by the Admiralty for the safety of the navigation.

3687. You are not aware whether the Admiralty stopped the progress of the Bill or not?—No.

3688. Your impression is that the city did so?—Yes, from the observation I heard at the time, that the Bill should not pass with that clause in it.

3689. Mr. *Warburton.*] Does that rule apply to the parts of the Thames above bridge?—No; the jurisdiction of the Admiralty extends in the great navigable rivers only below the bridges, that is, from the sea upwards so far as the tide flows to the first bridge. They have no jurisdiction above bridge.

3690. The *Lord Mayor.*] Do you know whether that clause was inserted in the Greenwich Pier Bill?—I do not know what became of the Bill, nor even whether it has passed.

3691. You are not aware whether the city demurred to that clause?—That I am aware of, because Mr. Alderman Wood and a deputation came to the Admiralty to object to it.

3692. And you do not know whether the clause was put into the Bill or otherwise?—No, I have never heard of the Bill since.

Robert Finch Newman, Esq., called in; and Examined.

R. F. Newman, Esq.

3693. The *Lord Mayor.*] ARE you the City Solicitor?—I am.

3694. Have you seen a paper delivered in to the Committee by the solicitor of the Admiralty respecting the jurisdiction of the river Thames?—I have.

3695. Are you able to give the Committee any information upon the subject, or have you any observation to make upon the remarks made by Mr. Jones?—I have some observations to make which I have committed to writing; I have made two columns; in the one I have inserted the statement of Mr. Jones, and in the other I have inserted my remarks thereon.

[*The same was delivered in and read, as follows:*]

STATEMENT of Mr. *Jones.*

(*A*). THE Crown, by its prerogative, has the property in the sea and in all navigable rivers which have the flux and reflux of the sea, and in every arm of the sea or navigable river so high as the sea flows, and this property extends as well to the soil as the water.

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(*A.*) ALTHOUGH the Crown, by its prerogative, has the property in the sea and all navigable rivers, "a subject, by grant or prescription, may have the interest in the water and soil of navigable rivers, as the city of London has the soil and property of the Thames by grant," 4 Comyn's Digest, p. 260, title, Navigation; and again, in 4 Comyn's Digest, 192, it is stated that "By grants from ancient kings the mayor, &c. of London have the property of the Thames *tam soli quam aquæ*;" and it has been decided that the jurisdiction of the Admiralty does not exist upon the river Thames, 1 Comyn's Digest, 276, title, Admiralty. In the 39th year of the reign of Elizabeth the Lord High Admiral contested the city's jurisdiction, but with no other success than to strengthen and confirm by a verdict the Lord Mayor's authority as conservator of the river Thames.

(*B.*) At

(*B.*) The

STATEMENT of Mr. *Jones*.

(*B.*) At common law, and by the statute 1 Eliz. c. 17, s. 6, the Lord High Admiral has the conservancy of the great and navigable rivers. This is confirmed by the stat. 54 Geo. 3, c. 159.

(*C.*) But the corporation of London has had for centuries past, by prescription or by grant from the Crown, the conservation and regulation of the river Thames. The first charter, however, which contains any express grant of the conservancy of the river is that of King James 1st, dated 20 August 1606, which recites that the Mayor, commonalty and citizens of London time out of mind have had and exercised the office of bailiff and conservator of the water of Thames; and it then proceeds to grant to them that office, and that they may exercise and execute the same from time to time for ever, in, upon or about the same water of Thames, that is to say, from the bridge of Staines to the bridge of London, and from thence to a certain place called Yenland, otherwise Yenleat, towards the sea, and towards the east, and Medway, and in the port of the city of London aforesaid, and upon whatsoever bank, shore or wharf of the same water of Thames within the limits and bounds aforesaid, in, upon and about every one of the same, and to receive, collect and enjoy all and singular wages, rewards, fees and profits to the same office of bailiff pertaining, to the proper use of the same mayor, commonalty and citizens.

(*D.*) This charter, therefore, evidently vests in the corporation the duty or office of conservator of the river; and if that duty had been at all times properly exercised by the corporation to the advantage of the navigation of the river and of the public at large, no interference with it would have arisen on the part of the Crown or of the

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(*B.*) The common law does not prevail against the city's immemorial rights and usages. So far from the stat. 1 Eliz. c. 17, s. 6, conferring upon the Lord High Admiral the conservancy of the river Thames, it establishes the fact of the Lord Mayor being the conservator. The words are as follows: "The Lord Admiral of England and the Mayor of the city of London for the time being, and all and every other person and persons, bodies politic and corporate, which by grant or other lawful ways or means lawfully have or ought to have any conservation or preservation of any rivers, streams or water, or punishments and corrections of offences committed in any of them, shall have full power and authority," &c. It is evident from this that the name of the Lord Mayor was here inserted expressly on account of his jurisdiction on the Thames and Medway, for he has no conservancy whatever over any other river. The statute of 54 Geo. 3, c. 159, merely confers powers upon the Lord High Admiral with reference to his Majesty's moorings, docks, dock-yards, arsenals and wharfs, and spaces along the sides thereof, and does not interfere with the Lord Mayor's rights as conservator; in fact, by the sect. 28 all rights of conservancy are expressly saved.

(*C.*) The charter of James 1st, dated 20th August 1606, does not contain a grant of the conservancy of the river, but after recognising it as the immemorial right of the city, ratifies and confirms it. It is unnecessary upon this occasion to enter minutely into the city's title, the corporation will be fully prepared to establish it, if again judicially put in issue; but so many decisions having already taken place wherein that title has been either admitted, confirmed or established, it is only necessary upon this occasion to state that the city's rights on the river Thames were recognised by charter so early as in the reign of King Richard 1. In a charter of King John they are described as "ancient liberties;" they are also recognised by charters both before and after that of 3 James 1st, in one of which, viz. that of the 23d Henry 6th, the Crown granted to the citizens of London all the common soils, encroachments and improvements in the water of Thames, together with the profits of the same encroachments and improvements, and that they might thereafter improve and farm them, and the rents thereof enjoy to themselves and their successors for ever.

The city's rights are also evidenced by numerous Acts of Parliament, extending from the reign of King Richard 2 to the present time; by numerous reports and other ancient authorities; and by the continued exercise of such rights, in the following instances, amongst others, viz.: holding courts of conservancy; punishment of offenders and receipt of fines imposed at that court to the city's own use, without account to the King; regulating the shipping, fixing posts, &c., in the river, for the convenience of shipping; removing obstructions; making regulations respecting the removal of ballast, &c.; repairing banks and breaches; licensing and permitting wharfs, encroachments and other innocent projections, and the receipt of fines and rents in respect thereof; abating wharfs encroaching into the river; erecting and maintaining public stairs and landing-places; abating stairs and causeways made by individuals; making orders respecting floats upon the river; licences to erect mills and waterworks; and regulating the fisheries.

(*D.*) It yet remains to be proved, and the corporation deny that the duties of conservator of the river have not been "properly exercised by the corporation to the advantage of the navigation of the river and of the public at large;" and it can be shown that the corporation have at various times applied large sums of money out of their own funds

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Lord High Admiral; but it is notorious, and the records of the court of conservancy, if they could be referred to, would prove that, under colour of this charter, fines and rents have been obtained by the corporation from all persons who would submit to pay them for licences to make wharfs or embankments on the shores of the river, without regard to the main part of its duty, namely, the conservancy of the navigation, and the prevention of works tending, by their want of uniformity with the rest of the shore, to produce banks and shoals in the bed of the river. That such projecting wharfs and embankments exist, and have been permitted to be performed, is obvious to every one passing down the river, and their mischievous effects, by producing banks and shoals, can be proved by Captain Beaufort, the hydrographer of the Admiralty, and Captain Bullock, the officer appointed by the Admiralty to survey the river.

(*E.*) A very glaring instance of the abuse of the charter in this respect occurred in the year 1811. Anthony Peck and others were indicted, on the prosecution of the corporation of London, for a nuisance, in making a wharf and embankment on the shore of the river at Gravesend, and the trial came on before Lord Ellenborough and a special jury at the summer assizes of that year at Maidstone. The nuisance was proved by the city officers, and the answer of the defendants to the charge was that the corporation had offered to allow the work to proceed, provided the defendants would pay them a rent for it, which was refused, and the prosecution was the result of that refusal. The judge and jury thought this a sufficient answer, and the defendants were acquitted.

(*F.*) This practice of requiring a rent to be paid to the corporation as a licence for erections on the shores of the river, is understood to be universal, and has given a colour to a claim set up by the corporation to the soil of the river, to which it is apprehended they are not in a condition to show the least legal title. It has however the effect of obtaining an acknowledgment from the several parties to whom these licences have been granted, of a title in the corporation; but this cannot prevail against the Crown or the public.

(*G.*) A person is now in treaty with the commissioners of Greenwich Hospital for a lease of some ground adjoining the river, which he proposes to improve by constructing a wharf upon it in front of the river, for which he says he has obtained a licence from the corporation on payment of a fine and an annual rent of two guineas; this wharf would evidently be an improvement of the shore, and can certainly produce no detriment to the navigation; but still the conservators of that navigation require a premium and rent for a licence to erect it, and thereby establish as against the man who thus becomes their tenant, a title to the soil on which it is erected.

(*H.*) Thus

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towards the improvement of the river. With reference to obtaining fines and rents for licences to make wharfs and embankments, such licences have never been granted where the embankment has been considered to be prejudicial to the public or to the navigation. They are, moreover, revocable at pleasure, and the fines or rents derived from them have been taken, under the advice of counsel, for the purpose of preserving the public and the city's rights, and to prevent the parties to whom such licences are granted, or their successors, from setting up a claim to the fee simple. All the monies received from that source, and much larger sums out of the city's purse, are annually applied to the purposes of the conservancy and improvement of the navigation. Licences of the above description have been granted from a very early period; and, it must be observed, that the city's right to grant such licences, and receive such rents, has been repeatedly acknowledged by various branches of His Majesty's service, who have applied for and obtained licences upon payment of rents to the corporation; and, amongst others, the Commissioners of His Majesty's Navy, the Board of Ordnance, the Commissioners for victualling His Majesty's Navy, and the corporation of the Trinity House; and in Stat. 3 & 4 Will. IV. c. 65, which empowers the Lord High Admiral to execute certain works on the bed and soil of the River Thames about Woolwich, the consent in writing of the Lord Mayor of the city of London, as conservator, is expressly required to be obtained, and his other rights as conservator are saved and reserved.

(*E.*) There must be some mistake with reference to this case. An indictment against Anthony Peck and others was set down for trial at the summer assizes at Maidstone in 1811, but the record was withdrawn by the city, under the advice of counsel; and no evidence was given by the city officers in respect of the nuisance, nor any evidence adduced by the defendants that the corporation had offered to allow the work to proceed, provided the defendants would pay them a rent.

(*F.*) This has been already observed upon in note (C.).

(*G.*) The reasons and necessity for imposing a fine and rent are stated in note (D.).

(*H.*) It

STATEMENT of Mr. *Jones*.

(*H.*) Thus it may be seen that the main use to which this charter of conservation is applied, is to increase the revenues of the corporation at the expense of the Crown and of the public, while the principal end of the charter is lost sight of.

(*I.*) It is true the charter grants the office, with its wages, rewards, fees and profits, but rents are not specified, nor could it have been the intention of the Crown to grant the soil or freehold out of which alone a rent is derivable, since the right of raising the soil of the river is granted by another charter and confirmed by Act of Parliament to the corporation of the Trinity House, which if the soil had been previously vested in the corporation of London, would not have been the case.

(*K.*) About 10 years since, numerous complaints were made to the naval department, of the state in which the navigation of the river was suffered to be, from the inattention of the court of conservancy, or rather of their harbour-masters, with whose consent ships were allowed to take any berths that suited them, without regard to the general convenience, and it was especially stated that they were allowed to moor in such numbers near the King's victualling-yard at Deptford, as to inconvenience the approach to that establishment. Remonstrance without effect had been made to the harbour-masters, who answered that they had no power to administer a remedy, and at length, in 1827, His present Majesty, then Lord High Admiral, under the authority of 54 Geo. 3, c. 159, directed a set of rules and regulations for the navigation of the river to be prepared, which was accordingly done by the solicitor of the Admiralty. These rules, which prescribe the proper places for the mooring and anchoring of ships from London-bridge to the Nore, were printed and publicly posted up in different places on the shore of the river, and appear to have given general satisfaction.

(*L.*) Recently it has been considered necessary that a large shoal or bank, which through inattention to the conservation of the river has grown up fronting the upper part of Woolwich dock-yard, should be removed to facilitate an entry into the docks. An application was accordingly made by the Admiralty to the corporation, as conservator of the navigation of the river, to remove it, the answer to which was, that the corporation had no funds for such a purpose; so that although they derive a considerable revenue from this office, they decline to expend anything in improving the navigation, looking only to its profits, and without any regard to its relative duties.

(*M.*) This neglect of the shores of the river has induced the Admiralty, of late years, to interfere in all Bills in Parliament, which, by authorizing piers, wharfs or quays, may in any manner affect ports and navigable rivers, by requiring the introduction of a clause, providing that the works shall be subject to the superintendence of that department, and this interference of the Admiralty in works on the shores of the Thames, has given umbrage to the corporation as a supposed infringement of their rights and privileges; but if they (as experience has shown) will not duly execute their duty,

OBSERVATIONS of the *City Solicitor*.

(*H.*) It will appear by note (D.) that the revenues of the corporation are not increased by these fines and rents, but that they are applied to the improvement of the navigation.

(*I.*) There is no inconsistency in the right of soil or freehold in the river being in the corporation of London, and the right of ballasting (which is merely a power to remove gravel, &c., for the purpose of ballasting ships) being in the corporation of the Trinity House; but the city have, however, at various times exercised a control over persons removing ballast, and so far back as the year 1538 an act of common council was passed for regulating such removal.

(*K.*) The regulation of the moorings, &c. near the King's victualling-yard at Deptford, is expressly given to the Lord High Admiral by the stat. of 54 Geo. 3, c. 159, and the rules and regulations here referred to are made under the authority of that Act, which confines his powers to the mooring, &c. of ships at or near His Majesty's docks, &c. (*See* note B.) The general moorings in the river are placed under the direction of the harbour-masters of the city of London, by the Act of the 39 Geo. 3, c. 69, and subsequent Acts.

(*L.*) The removal of shoals is expressly within the province and duty of the Trinity House, who have the profits derived from the ballast. The corporation some time since contributed a large sum for the removal of particular shoals, but it was done under the authority of Parliament, and out of public monies furnished them for the purpose of improving the navigation; and so far from deriving a considerable revenue from the office, the corporation of London, as has been already stated, in note (D.), are at a great annual expense beyond the monies received.

(*M.*) The interference of the Admiralty in Bills in Parliament, authorizing piers, wharfs or quays, may have taken place in other ports and navigable rivers; but with reference to the Thames, the first instance in which the Admiralty has required the introduction of any clause providing that the works should be subject to the superintendence of that department, is the Greenwich Pier Bill, which received the Royal assent a few days ago. The corporation considered this an infringement of their rights and privileges, and a clause was ultimately prepared by the corporation of

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STATEMENT of Mr. *Jones*.

they cannot justly complain of the interference of the Crown, whose officer or conservator they are, and from whose authority they derive their office.

(*N.*) This controlling power of the Crown is unquestionable, for Lord Hale, in his Treatise on the Ports of the Sea, expressly says, that although a subject may have the property of a navigable river, part of a port, yet that the King hath a right of empire or government over it in reference to the safety of the kingdom, and that the people have a public interest, a *jus publicum* of passage and repassage, which must not be obstructed by nuisances, for the *jus privatum* of the owner is charged with that *jus publicum* which belongs to the King's subjects, as the soil of an highway is; which though, in point of property, it may be a private man's freehold, yet it is charged with a public interest of the people, which may not be prejudiced or damnified. This doctrine, which from its source no one will doubt, applies with more force to the corporation of London, who have not the freehold of the river, but are merely the officer of the Crown, constituted to preserve its navigation.

(*O.*) And it may be clearly inferred from the charter itself, that it was not the intention of the Crown to part with this legal and controlling power; for after granting the office of conservator, it proceeds to grant to the corporation the office of measuring coals and grain, with the wages, fees, &c. of that office, which are to be taken *without any hindrance from the King or his Admiral*, but no such exemptory words accompany the grant of the conservancy of the river.

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London, and, with the consent of the Admiralty, substituted for the clause prepared by them.

(*N.*) The control of the Crown over the river Thames, with reference to the public safety, is not disputed; but it is clear by notes (A.) and (C.), that the soil and freehold of the river is vested in the city by grant from the Crown, and their right over the same has been continually exercised to the present time.

(*O.*) On reference to the charter, it will be found that the provision that the corporation shall hold the offices therein mentioned, without hindrance from the King or his Admiral, applies as well to the office of conservator as that of measurer, and is not confined to the office of measurer only; for the charter provides that the city "shall enjoy the offices aforesaid" (the only offices previously mentioned being those of conservator and measurer), "and receive the fees," &c. "without impeachment of His Majesty, or his heirs or successors, or any officers, bailiffs or ministers of his said Majesty, or his heirs and successors, or the Admirals of England of his said Majesty, his heirs and successors, or other subjects of his said Majesty or his successors whomsoever, or of any grant by his said Majesty or his heirs or successors, to be made to the contrary."

Mr. *Benjamin Whinnell Scott*, called in; and Examined.

Mr. *B. W. Scott*.

3696. The *Lord Mayor*.] YOU are the principal clerk to the Chamberlain of London?—Yes, I am.

3697. Do you produce any account of the expenses of the conservancy?—I have prepared such account for the last five years.

[*The Witness delivered in the same, which was read, as follows:*]

A STATEMENT of the Expenses of the Conservancy of the River *Thames*, for Five Years, ending the 31st of December 1835.

	1831.	1832.	1833.	1834.	1835.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Salary of water-bailiff -	500 – –	500 – –	500 – –	500 – –	500 – –
Disbursements of ditto in the execution of his office - - -	277 7 1	235 6 1	238 11 4	365 11 2	273 11 9
Salaries to principal and other assistants to water-bailiffs at Lambeth, Hampton, Fulham, Greenwich and Leigh -	535 – –	535 – –	535 – –	535 – –	544 3 6
Disbursements in the execution of their offices -	255 8 4	288 13 6	274 10 –	319 5 –	290 10 6
On account of the expenses of conservancy juries - - -	300 – –	300 – –	300 – –	300 – –	300 – –

	1831.	1832.	1833.	1834.	1835.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Repairs of boats, and hire of barges, for said juries - - -	87 10 3	97 10 8	102 9 2	124 4 7	112 13 -
Clothing, and hats and caps for watermen, and sundries - - -	42 8 -	60 11 9	27 1 -	136 18 -	52 1 -
Expenses of surveys of the river - - -	- - -	- - -	- - -	154 13 -	155 2 6
Proportion of expenses of city barge, &c. applicable to the conservancy of the river, average of 28 years -	336 8 5	336 8 5	336 8 5	336 8 5	336 8 5
£.	2,334 2 1	2,353 10 5	2,313 19 11	2,772 - 2	2,564 10 8

Average - - - £. 2,467 12 7

Note.—The above is exclusive of the costs and charges incurred by prosecutions for encroachments, nuisances, or other offences connected with the conservancy of the Thames.

Chamberlain's-office, Guildhall,
August 5, 1836.

Witness.] The account is exclusive of the expenses incurred by the corporation in various prosecutions which from time to time they found it necessary to institute in the preservation of their rights as conservators of the river Thames.

3698. *Chairman.*] What number of prosecutions have taken place on that ground within the last twelvemonth?—I am not aware of the precise number nor of the expense, in consequence of the salary to the city solicitor, whose duty it is to prosecute, being in one aggregate sum.

3699. Do those prosecutions arise from injury done, or from non-payment of the rent that is due to the court of conservancy?—The prosecutions have generally been for encroachments on the river, or nuisances occasioned by throwing mud or soil improperly into the river, or the refuse of the gas escaping, or nuisances of that character.

3700. Captain *Alsager.*] Are there any expenses included in this with respect to the harbour-master taking berths for ships?—Not the smallest.

3701. The *Lord Mayor.*] Those expenses are for the water-bailiff, his assistants, for the preservation of the fish, for removing obstructions, and in fact are applicable to the conservancy of the river above bridge, except the holding of courts of conservancy?—It applies to both districts, inasmuch as two of the water-bailiffs' assistants have stations below bridge, but the major part is above bridge.

3702. *Chairman.*] Have the corporation, to your knowledge, instituted any suit against parties who resisted the orders of the harbour-master; when they did not remove at the expiration of the 12 hours?—I am not aware of any such thing; it may have taken place. I do not attend the committees generally, my duty being principally confined to matters of account.

3703. The *Lord Mayor.*] Have you an account of the receipts for the last five years of fines, quit-rents and other sources which the court of conservancy derive?—Such an account has been delivered; and I find the average produce of the last five years is about 750 *l.*

3704. And the annual expenditure is how much?—£. 2,467, exclusive of the law charges.

3705. *Chairman.*] Under whose superintendence has that been conducted?—The greater part has been under the superintendence of the court of aldermen.

3706. But who is the officer who actually superintends the expenditure of that money?—The court of aldermen, and a committee appointed for the superintendence of the navigation of the river; it is under both. Parts are under the superintendence of the one, and parts under the other.

Mr. B. W. Scott. 5 August 1836.

3707. It is not under the immediate orders of any particular officer?—Not exclusively under the immediate superintendence of any officer.

3708. The *Lord Mayor.*] But all accounts are audited either by the Lord Mayor and court of aldermen, or by the navigation committee?—Invariably.

3709. Mr. Alderman *Wood.*] Does not a considerable part of the orders go from Mr. Leach, the clerk of the works?—He is not so much connected with the conservancy of the Thames. Mr. Leach's duties as clerk of the works of the navigation are principally confined to duties under the Act of Parliament.

3710. Then he does not superintend this expenditure?—No.

3711. The *Lord Mayor.*] So that the conservancy, instead of being a source of profit, is an annual expense to the corporation?—It is an annual loss, independently of the large sums which the corporation have from time to time paid out of their funds for the maintenance of the navigation.

3712. And any other legal expenses, besides prosecutions, are an additional charge upon the corporation of London?—They are.

3713. You have delivered in the average of five years; would the average of a greater number of years produce a similar result?—Very similar, I apprehend.

3714. In addition to the account of expenses delivered in, and the legal expenses, have not the corporation, at various times, contributed other large sums towards the improvement of the river?—They have.

3715. Can you give the Committee any account of those sums?—In the years 1774, 1775, and 1776, the sum of 21,389 *l.* was given up by the corporation, it having been money advanced for the improvement of the navigation of the river, with an expectation of repayment, and which repayment it was found was not likely to be made. The corporation, therefore, relinquished their claim to such debt, and ordered it to be written off; and, in addition to that, 15,000 *l.* has been advanced by the order of the court of Common Council in the year 1823, free of all interest, and no part of that has ever been repaid.

3716. *Chairman.*] And you are not aware under whose direction that money is expended?—It is expended exclusively under the superintendence of the court of aldermen, or the committees of the court of aldermen.

3617. That is to say, that the order was issued by the Lord Mayor and aldermen; but under whose immediate superintendence was that money expended?—The only answer that I can give to that question is, that the works effected, and the management of the concern, are under the superintendence of the court of aldermen and the committees, who meet from time to time and receive the reports of the officers, and audit bills as they come in, and direct payment.

3718. The *Lord Mayor.*] Do you know what particular work occasioned the expenditure of 15,000 *l.* in 1823?—It was a general improvement of the line of the river westward of London Bridge, the tolls provided by Parliament having been insufficient to defray those expenses; the corporation therefore thought it right to advance out of their own funds 15,000 *l.* to meet such expenses.

3719. *Chairman.*] You mean between London and Blackfriars?—In that instance they were works wholly above bridge.

3720. Mr. Alderman *Wood.*] A part of that money was for the improvement of Teddington lock, was it not?—Yes, and other locks and towing-paths.

Edward Tyrrell, Esq., called in; and Examined.

E. Tyrrell, Esq.

3721. Mr. Alderman *Wood.*] YOU are the City Remembrancer?—Yes, I am.

3722. Have you a statement of the navigation committee respecting piers and jetties in the river Thames?—Yes; it was a communication by order of the navigation committee, to Sir Robert Peel, then First Lord of the Treasury and Chancellor of the Exchequer. The answer received from Sir Robert Peel was, that he did not think it necessary to interfere.

3723. What is the date?—January 1835.

3724. Will you put it in?

[*The Witness delivered in the same, which was read, as follows:*]

The attention of the Lord Mayor and the corporation of London, as conservators of the river Thames, has for a considerable time past been occupied with the regulation of the port of London, and the consideration of that subject has brought more particularly under

under their notice the necessity of providing a fund for the improvement of the river, both in the immediate neighbourhood of the metropolis and in the port of London. The upper part of the river under their jurisdiction, extending to Staines, has been materially improved, and is now in a very excellent state, effected by the corporation with money raised on the credit of the tolls by the authority of Parliament.

The corporation of London, as conservators, have no fund applicable to the removal of the shoals and mud-banks in the port of London, and the Trinity House will not remove any that cannot be disposed of as ballast. This subject was brought under the consideration of the Lords of the Privy Council for trade in the last year, and their Lordships deeply regretted that the removal of several shoals and mud-banks in the port of London could not be effected, which would give a great increase of accommodation to vessels frequenting the port of London.

In the immediate neighbourhood of the metropolis the banks of the Thames would be considerably improved by an embankment of those parts which diverge inwards from the general line of the river, leaving a considerable space for the accumulation of mud, to the injury of the health of the inhabitants in its vicinity and of no service to the navigation. The part of the shore of the river between Privy Gardens and the wharf formed by the Hungerford Market Company, and many other similar parts, would be greatly improved by an embankment.

In a report from Sir John Rennie and Mr. Mylne, dated the 28th October 1831, on the subject of the embankments in the river Thames, they state that "whatever plan be projected, the advantages already possessed should not be interfered with, either as regards private or public rights, nor should the general capacity of the river for the reception of the inland and tidal waters be diminished further than is required to maintain a due velocity or scouring power, upon which the navigation as well as the drainage, health and ornament of the metropolis mainly depend."

The great increase which has taken place in the number of steam-vessels on the river Thames, and the accommodation required for the passengers using the same, have also occupied the attention of the corporation of London. So long as the public were satisfied with the employment of the watermen on the river Thames for the transit of passengers to and from steam-vessels, the corporation did not wish to interfere; but the great increase which has taken place in the steam-vessels, and the decided objection of passengers to embark or land in boats where any other sort of accommodation can be furnished, are such as to render it evident that proper accommodation must be provided.

During the last year applications have been made by private individuals to the navigation committee of the corporation of London for leave to erect piers at Deptford, Shadwell, Woolwich, and Northfleet; and, in addition to these, notices have been given for applications to Parliament in the next Session for powers to erect piers in the river Thames to land and embark passengers, by the following parties:

For a pier at Northfleet, by Mr. Nokes.

For a pier at Greenhithe, by the same person.

For a pier at Deptford, by Mr. Barnard.

For a pier at Hungerford Market, by the Hungerford Market Company.

For piers or landing-places at Deptford and Greenwich, by the Greenwich Railway Company.

And it is obvious that if these parties obtain the powers they request no limit can hereafter be placed to the number of such erections on the river Thames.

It has been, therefore, thought desirable by the corporation of London that, instead of allowing speculators for their private gain to erect piers in different parts of the river (which has been found, in the case of the Gravesend pier, to be hardly capable of any proper control or regulation), the corporation of London should be empowered by Parliament to take tolls upon such piers as they may deem it advisable to erect in that part of the river Thames under their jurisdiction, in which they will be influenced only by the accommodation which the public require, and will take every precaution that the navigation of the river is not injured or impeded, the profits arising therefrom, after payment of the necessary charges, to be applied

To the removal of shoals and mud-banks which the Trinity House will not remove;

To the construction of public walks and drives along the shore, and

To the general improvement of the river.

Partial embankments of the river Thames have been formed from time to time with evident advantage.

In 1767 a line of embankment between Paul's Wharf and Milford Lane was authorized by an Act of Parliament of 7 Geo. 3, c. 37; the profits derived from such embankment were applied towards the repairing, &c., of Blackfriars Bridge.

Another embankment was formed at Durham Yard and the parts adjacent, where the Adelphi now stands.

A further improvement has been lately effected at Hungerford Market, which forms a part of an improved line of embankment.

By an Act of 4 Geo. 4, the embankment near London Bridge was authorized, and the proceeds directed to be applied towards the expense of building London Bridge.

Numerous grants have also been made by the corporation of London for embankments at the Custom House and various other parts of the river, by which, to a certain extent, the general line has been regulated and improved.

The corporation is now desirous to undertake the gradual embankment of all parts of the

E. Tyrrell, Esq.

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river, which will be improved thereby, without compelling the present proprietors and occupiers to part with their wharfs; it is believed that by setting out a certain line of embankment many wharf proprietors will at once, if permitted, be glad to bring out their frontage to that line; and that altered circumstances will from time to time, as the occupancy changes and wharfs are rebuilt, render it generally advantageous to proprietors; and the funds derived from the embankments and piers would furnish resources for removing some embankments which now project too far into the river, as well as the shoals and mud-banks in the port of London, and the materials obtained would be very usefully employed in raising the low grounds near the river, and converting them into public drives and walks.

It may further be observed that the Report of a Special Committee of the House of Commons, of the 28th July 1800, suggests the propriety of the corporation of London improving the river Thames by embankments.

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APPENDIX.

— No. 1. —

PORT OF LONDON BYE-LAWS.

No. 1.
Proceedings of the Common Council.

REPORT to the Court of Common Council from the Thames Navigation and Port of London Committee, with proposed new Bye-laws for the Harbour-service of the Port of *London*; presented 29th October 1835; and a Plan for Mooring Colliers conformably thereto.

Winchester, Mayor.

A Common Council holden in the Chamber of the Guildhall of the City of London, on Tuesday the 3d day of November 1835.

THIS day the Court resumed the debate upon the Report of the Committee for improving the Navigation of the River Thames, and for carrying into execution the Acts of Parliament for rendering more commodious and better regulating the Port of London, on having prepared a new code of Bye-laws for the good government of the Harbour-masters of the Port of London, &c.

Resolved, That the consideration of the said report be adjourned; and it is ordered that the same, together with the proposed bye-laws and plan, be printed, and also all the evidence taken by both committees in relation to the subject (except so much as relates to the mooring of vessels on the south side of the river), and a copy thereof sent to every member of this court.

Woodthorpe.

To the Right Honourable the Lord Mayor, Aldermen and Commons of the City of London in Common Council assembled.

WE, whose names are hereunto subscribed, your Thames Navigation and Port of London Committee, to whom, on the 2d day of July last, it was referred to examine the allegations in the memorial of the St. Katharine Dock Company, relative to the proposed bye-laws for regulating the harbour-service of the port of London, and praying to be allowed to tender evidence against the mode therein contemplated for the mooring of colliers, and in support of the necessity of maintaining a free and open passage of 300 feet for the transit of shipping through the Pools, instead of 250 feet as proposed by the said bye-laws, and to report our opinion thereon, do certify, that we have accordingly proceeded in the consideration of the said memorial, and were attended by Sir John Hall, on behalf of the St. Katharine Dock Company, who was fully heard upon all the subjects contained therein, and laid before us a plan for a different mode of mooring colliers, by placing the whole of them on the south side of the river; together with various petitions from merchants, shipowners and other parties, with documents and statements in favour of an open passage of 300 feet being kept through the Pools; and who likewise examined sundry witnesses in support of those points.

That we were likewise attended by Simon Cock, esquire, on the part of the London Dock Company, who was heard against the plan of the St. Katherine Dock Company, for the mooring of colliers, and submitted a different plan for that purpose; and who also examined sundry witnesses in support of the views of the London Dock Company.

That we were also attended by deputations from the coal-trade, and the wharfingers on both sides of the river, who adduced evidence against the plan of the St. Katharine Dock Company; and we received several memorials from captains and other parties engaged in the coal-trade, from the Watermen's Company, shipowners, pilots, and others in the habit of navigating the river, and from the inhabitants of Ratcliff and Shadwell, to the same effect.

That, in the course of the whole of the investigation, we were attended by the harbour-masters of the port of London, who were severally heard and examined, and laid before us certificates from masters of vessels in the coal and coasting trade, and from pilots and watermen, setting forth their decided opinion that it was not absolutely necessary to have a clear space of 300 feet at low water for the purpose of navigation from Limehouse Reach to London Bridge; and who also reported that it was impracticable at all times to preserve the distance of 300 feet.

That we, your committee, having taken the whole of the evidence, and also the several documents submitted to us, into our serious consideration, are opinion that it would be highly objectionable, and would seriously affect other important interests, if the colliers now moored on the north side of the river, were allowed to be moored on the south side, as proposed by the plan of Sir John Hall, on the part of the St. Katharine Dock Company.

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And we are further of opinion (taking into consideration the increase of the shipping and coasting trade resorting to the port of London, and the necessary accommodation which is required for the same), that it will be impracticable to afford such accommodation and preserve so large a space as 300 feet clear water-way at all times for the transit of vessels through the Pools; and we therefore see no reason to alter our opinion in respect thereof, as contained in the proposed bye-laws for regulating the harbour-service of the port of London, and laid before this honourable court on the 15th day of April last.

We beg leave further to certify, that having received various suggestions from the St. Katharine Dock Company for alterations in other parts of the proposed bye-laws, we have taken the same attentively into consideration, and several of them appearing to us desirable to be adopted, we have altered and amended the bye-laws accordingly.

All which we submit to the judgment of this honourable court. Dated this 22d day of October 1835.

W. A. Peacock.	*N. Negus.*
J. Robinson.	*Joseph Thompson.*
Thos. Davis.	*George Bousfield.*
H. Jackson.	*James Curtis.*
H. Fisher.	*Samuel Beeton.*
Jas. S. Bridge.	*W. T. Heath.*
Thomas Summers.	*W. D. White.*
Wm. Richardson.	*H. H. Mortimer.*
W. Matthews.	*Daniel Bevis.*

Bye-Laws, Rules, Orders and Regulations for the good government of the harbour-masters of the port of London, and for the more safe and convenient navigating, placing, mooring, unmooring, and removing of ships and other vessels, steam-boats, lighters and craft on the River Thames, in and near the said port, and for other purposes; made, ordained and established this day of 183 by the mayor, aldermen, and commons of the city of London, in common council assembled, in pursuance and under the authority of an Act of Parliament passed in the 10th year of the reign of his late Majesty King George 4th, intituled "An Act for altering and amending the powers of an Act of the 39th year of the reign of King George 3rd, for rendering more commodious and for better regulating of the Port of London."

Whereas, by a certain Act of Parliament passed in the 10th year of the reign of his late Majesty King George 4th, intituled "An Act for altering and amending the powers of an Act of the 39th year of the reign of King George 3rd, for rendering more commodious and for better regulating the Port of London," it was enacted (amongst other things), that it should be lawful for the mayor, aldermen, and commons of the city of London, in common council assembled, from time to time, to make, ordain and establish such bye-laws, rules, orders and regulations for the observance and good government of the harbour-masters of the port of London, and the times and places of their respective attendance, and the division and regulation of their several duties, and for the more safe and convenient navigating, placing, mooring, unmooring and removing of ships and other vessels in the river Thames, in and near the said port (except any docks made in pursuance of any Act or Acts of Parliament, and any works thereto belonging, and such parts of the said river at the several entrances to such docks respectively within which ships and other vessels are by virtue of the said Acts respectively under the power, authority or control of the dock-masters, or other persons in the said Acts respectively mentioned), and for the better governing and regulating of all masters of vessels, pilots, lightermen and others, within the said port (except as aforesaid), and for other purposes mentioned in the said Act, and such other lawful and reasonable bye-laws, rules, orders and regulations as they should deem necessary and expedient for the due execution of the therein-recited Act of the 39th year of the reign of King George 3rd, and the said Act, so as the same respectively were not contrary to or inconsistent with the therein-recited Acts or any of them, or the said Act, or any of the regulations enacted thereby, or by any other Act or Acts of Parliament in force at or immediately before the passing of the said Act now in recital, and not thereby repealed or altered, or contrary to or inconsistent with the laws of that part of the United Kingdom called England; and also, from time to time as they should see occasion, to repeal, annul, add to, amend and alter such bye-laws, rules, orders and regulations, or any of them, in such manner as to them the said mayor, aldermen and commons in common council assembled, should seem meet or requisite, and to fix and appoint reasonable pecuniary penalties not exceeding 10 *l.* for the non-observance, non-performance, or other breach of such bye-laws, rules, orders and regulations, or any of them:

And whereas, in pursuance and under the authority of the said Act of Parliament passed in the 10th year of the reign of his said late Majesty King George 4th, certain bye-laws, rules, orders and regulations for the good government of the said harbour-masters of the port of London, and for the more safe and convenient navigating, placing, mooring, unmooring, and removing of ships and other vessels, steam-boats, lighters and craft on the river Thames, in and near the said port, and for other purposes, were made, ordained and established on the 14th day of July 1829, by the mayor, aldermen and commons of the city of London, in common council assembled: and whereas it is deemed meet and requisite by the said mayor, aldermen and commons in common council assembled, under the authority of the said last-mentioned Act, to repeal the said last-mentioned rules, orders and regulations, and to make, ordain

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ordain and establish others in lieu thereof; be it therefore ordained and established by the right honourable the lord mayor, the aldermen his brethren, and the commons of this city, in common council assembled, that from and after the expiration of one calender month next after these present bye-laws, rules, orders and regulations shall have been printed, distributed and affixed in manner required and directed by the statute in that behalf, the same having been first allowed and approved of as required by the said statute, the said other bye-laws, rules, orders and regulations of the said 14th day of July, in the year of our Lord 1829, shall be and the same are hereby altogether repealed.

Power of the principal or superintending harbour-master.

1. And be it further ordained and established by the authority aforesaid, that such of the four harbour-masters as shall from time to time be appointed principal or superintending harbour-master, shall have the sole and entire control of the executive part of the harbour and mooring-chain service, to enforce the due observance of the bye-laws and other regulations which may from time to time be established under the authority thereof, or of the Acts of Paliament for rendering more commodious and for better regulating the port of London, and perform and execute all and every such other matters and things as shall from time to time be ordered or directed by the said mayor, aldermen and commons of the city of London, in common council assembled, or any committee appointed or to be appointed by them for carrying into execution the said Acts of Parliament; and that the three other harbour-masters now appointed, or who may be hereafter appointed, shall be required to obey and follow such orders and directions as the said principal or superintending harbour-master may deem it necessary from time to time to issue for the due and effectual performance of the harbour service, and which orders and directions he shall be authorized to issue independently of the meeting of harbour-masters hereinafter mentioned, he the said principal or superintending harbour-master being nevertheless responsible that all such orders and directions as he shall from time to time issue shall be in accordance with the spirit and intent of the said Acts of Parliament and the bye-laws and regulations established under the authority thereof.

The principal or superintending harbour-master to preside as chairman at the meeting of the harbour-masters.

2. And be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master shall always preside as chairman of the meeting of harbour-masters, as hereinafter mentioned, and that no such meeting shall be held without his presence, unless his absence be occasioned by illness or other especial cause.

The principal or superintending harbour-master to be furnished with a boat and a competent number of watermen.

3. And be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master for the time being shall be furnished and provided (by and at the expense of the said committee to carry into execution the said Act of Parliament) with a boat, and oars, sails, warps, and every other requisite for the use thereof, and a competent and sufficient number of watermen to row and navigate the same.

Two other boats and watermen to be provided for the harbour service, and the use of the other harbour-masters, and a third if necessary.

4. And be it further ordained and established by the authority aforesaid, that there shall also be furnished and provided for the harbour service, and the use of all the three other harbour-masters, two other boats and requisites thereto, and watermen to row and navigate each of the said last-mentioned boats (that is to say), one of the said boats to be designated by carrying a red flag, to be stationed at St. Katharine's for the use of such of the said harbour-masters as shall be attending duty upon the upper station; and the other of the said boats to be designated by carrying a blue flag, and to be stationed at Greenwich, for the use of such of the said harbour-masters as shall be attending duty upon the lower station; provided nevertheless, that if at any time or times hereafter the said committee shall deem it necessary that a third boat should be furnished and provided for the use of the harbour service, or of any of the said other three harbour-masters, it shall be lawful for the said committee to furnish and provide another or third boat, and requisites thereto, and watermen to row and navigate the same, such last-mentioned boat to be designated by carrying a white flag, and to discontinue or renew the same from time to time as occasion may require, or as the said committee shall in their discretion think fit to direct.

The watermen to reside where directed; and may be suspended by the harbour-masters.

5. And be it further ordained and established by the authority aforesaid, that the respective watermen employed to row and navigate the several boats employed in the harbour service shall be nominated and appointed by the mayor, aldermen and commons of the city of London, in common council assembled, or by any committee appointed or to be appointed by them to carry the said Acts of Parliament into execution; and each and every of the said watermen shall reside at such place or places as the said committee shall from time to time direct or approve; and that no harbour-master or other officer employed by the said committee shall take upon himself to discharge any of such watermen or other person who shall be working under him by order of the said mayor, aldermen and commons of the city of London, in common council assembled, or of the said committee, but that the said harbour-master or other officer shall be at liberty to suspend those whom in their discretion they may consider as having been guilty of any misconduct, and in that case such harbour-master or other officer shall report the same to the said committee at their next meeting after such suspension, in order that the said committee may determine whether such person shall be discharged or not.

Harbour-masters to attend the meetings of the committee.

6. And for better enabling the said committee to carry into execution the said Acts of Parliament, be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master, and the said three other harbour-masters, or some or one or more of them, shall attend the several meetings of the said committee on being summoned for that purpose.

Principal or superintending harbour-master to attend daily at his office.

7. And be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master shall attend every day, and as constantly as his duties afloat will permit, for the transaction of all public business at an office to be situate in or near Saint Katharine's, provided or to be provided by the committee appointed or to be appointed by the said mayor, aldermen and commons in common council assembled, to carry into execution the said Acts of Parliament; which office shall continue open from nine of the clock in the morning until five of the clock in the afternoon of each day; and whenever the said principal or superintending harbour-master shall quit the said office, a note in writing shall be left with the clerk, or during his necessary absence shall be stuck up on the door, or left in the office, announcing the hour at which he means to return, for the purpose of receiving any communication relative to the harbour service; upon pain of suspension or dismissal for every default.

One of the under harbour-masters to attend the office at Greenwich.

8. And be it further ordained and established by the authority aforesaid, that one or other of the aforesaid three harbour-masters at the discretion of the said committee, subject to the several bye-laws, rules, orders and regulations herein contained, shall attend at the office to be situated in or near Greenwich, provided or to be provided by the committee appointed or to be appointed by the said mayor, aldermen and commons in common council assembled, to carry into execution the said Acts of Parliament.

Regulations for alternate day and night duty.

9. And be it further ordained and established by the authority aforesaid, that in respect to the alternate day and night duty or service of the harbour-masters hereinafter mentioned, the following rules, orders and regulations shall be strictly observed and followed; that is to say, that the said principal or superintending harbour-master hereinbefore mentioned, by reason of the services hereinbefore required of him, shall be excused from the performance of the alternate day and night duty next hereinafter mentioned. That the following be the scale and rotation of day and night duty to be performed by the three other, the said night duty to be performed only whenever the same shall be deemed necessary, as hereafter provided.

Day and Night Duty.

First Day.—That one of the aforesaid three harbour-masters shall on the first day be and continue upon duty during the whole of the flood-tide and the first two hours after high-water, and shall during that time have the superintendence and direction of the navigating, placing, mooring, unmooring, and removing of all ships and vessels, steam-boats, lighters and craft (except such ships and vessels as are in the said Acts and hereinafter excepted), in the river Thames at the upper station; that is to say, between London Bridge and Duke's-shore.

That the second of the said three harbour-masters shall on the first day and during the same time have the like superintendence and direction in the said river (except as before excepted) at the lower station; that is to say, between Duke's-shore aforesaid and a certain place called Bugsby's Hole below Blackwall.

That the third of the said three harbour-masters shall on the first day be off duty, except such attendance as may be necessary at the office in or near Greenwich.

First Night.—That one of the said three harbour-masters shall on the first night be and continue upon duty for the last two hours of the flood and first hour of the ebb-tides, and shall during that time go to the lower station (that is to say, between Duke's-shore and Bugsby's Hole), to stop ships, vessels and steam-boats, if necessary, or to direct them where to go; and when no more ships, vessels or steam-boats are likely to pass Blackwall, he shall go up with the last of the tide and see how the ships, vessels and steam-boats have taken their berths, and give such directions as may be necessary.

Second Day.—That the second of the said three harbour-masters shall on the second day perform the duty which is required and directed to be performed by the first of the said three harbour-masters on the first day.

That the third of the said three harbour-masters shall on the second day perform the duty which is required and directed to be performed by the second of the said three harbour-masters on the first day.

That the first of the said three harbour-masters shall on the second day be off duty, except such attendance as may be necessary at the office in or near Greenwich.

Second Night.—That the second of the said three harbour-masters shall on the second night perform the duty which is required and directed to be performed by the first of the said three harbour-masters on the first night.

Third Day.—That the third of the said three harbour-masters shall on the third day perform the duty which is required and directed to be performed by the first of the said three harbour-masters on the first day.

That the first of the said three harbour-masters shall on the third day perform the duty which is required and directed to be performed by the second of the said three harbour-masters on the first day.

That the second of the said three harbour-masters shall on the third day be off duty, except such attendance as may be necessary at the office in or near Greenwich.

Third Night.—That the third of the said three harbour-masters shall on the third night perform the duty which is required and directed to be performed by the first of the said three harbour-masters on the first night.

And that the form and manner of doing the duty on the fourth day and night be the same as that on the first day and night; the fifth as the second, the sixth as the third, and so continuing from day to day and during the night in regular and constant succession; and that

that a list of the names of the harbour-masters on duty, describing their respective stations, be ready for inspection by any person demanding the same during business hours, at the two offices aforesaid.

Proviso for night duty.

Provided always, that when and so often as it shall become necessary, from the crowded state of the Pools or otherwise, that the said night duty shall be performed, then and in every such case the same shall be performed by the harbour-master or harbour-masters whose turn or turns it would have been according to the rotation of night duty hereinbefore mentioned; and provided also that if at any time or times hereafter the said committee shall deem it proper that the said night duty should be constantly performed during any successive number of nights or on every night, and shall direct the same to be done, then and in all such cases the said three harbour-masters shall perform the same accordingly, in the alternate rotation hereinbefore specified.

In cases of absence or illness of either of the harbour-masters, the principal or superintending harbour-master to give directions to the others.

10. And be it further ordained and established by the authority aforesaid, that in case any of the said three harbour-masters, whose alternate duty it shall be to attend under the regulations last herein mentioned, shall be absent from duty, or shall be prevented by illness from performing his duty, the said principal or superintending harbour-master for the time being shall be at liberty to give such orders and directions to the other harbour-masters for the performance of such duties as he in his discretion shall think fit, so as the same shall be in conformity to and consistent with the directions which shall from time to time have been given by the said committee, and shall then be subject to such alterations as the said committee shall at their next meeting direct concerning the same; and to which committee the said superintending harbour-master shall report such orders and directions as he shall have so given to the said other harbour-masters.

Appeal to the committee against the orders of the principal or superintending harbour-master.

11. And be it further ordained and established by the authority aforesaid, that if any of the orders and directions which shall be from time to time issued by the said principal or superintending harbour-master for the performance of the harbour service, shall be considered in the opinion of any of the three other harbour-masters to be objectionable, or if they shall be dissatisfied with the said orders and directions, they shall be at liberty to make a written appeal against the same to the said committee, whose decision shall be final and conclusive between the parties; provided always, that such orders shall, notwithstanding such appeal, be carried into execution by the harbour-masters on duty, without waiting the hearing of the appeal.

Harbour-masters to obtain leave of absence from the lord mayor with the sanction of the committee or the chairman of the committee and the principal or superintending harbour-master, upon pain of suspension or dismissal.

12. And be it further ordained and established by the authority aforesaid, that whenever any of the three harbour-masters wish for leave of absence from their duty, they shall apply for such leave to the lord mayor for the time being, with the sanction and consent of the committee, or the chairman of the said committee, previously had and obtained, notice thereof being first given to the principal or superintending harbour-master, upon pain of suspension or dismissal for every such default.

Harbour-masters obtaining leave of absence from the lord mayor to communicate same to the committee through the principal or superintending harbour-master, upon pain of suspension or dismissal.

13. And be it further ordained and established by the authority aforesaid, that the said three harbour-masters, or either of them, shall not absent themselves or himself from their or his duty without the consent of the lord mayor, to be obtained as aforesaid, unless occasioned by illness or other unavoidable cause; in either of which cases the cause of such absence shall be reported forthwith to the principal or superintending harbour-master, upon pain of suspension or dismissal for every such default, and the said principal or superintending harbour-master shall thereupon report the same to the said committee.

Harbour-masters not coming on duty, or not being on duty at the time required, or not continuing the whole time, upon pain of suspension or dismissal.

14. And be it further ordained and established by the authority aforesaid, that in case either of the three harbour-masters, whose duty it shall be to attend under the regulations hereinbefore mentioned, shall wilfully neglect to go upon such duty, or shall not be on duty at the time or hour required for his attendance, or shall not continue and remain on duty during the whole time appointed for that purpose, he shall for every such default be subject to suspension or dismissal.

Harbour-masters to enter in day-books when they go on duty, and other particulars; which books to be laid on the table of the committee once in every month at least.

15. And be it further ordained and established by the authority aforesaid, that the said three harbour-masters shall enter daily, in their own hand-writing, in books to be provided by them for that purpose, the precise hour they went on duty, how long they continued thereon, and what part of their districts they surveyed, together with the time of the day when such entry shall have been made; and that the said books shall be laid upon the table of the said committee and of the sub-committee at least once in every month, and also whenever the said committee or sub-committee shall require the same.

Meeting of harbour-masters.

16. And be it further ordained and established by the authority aforesaid, that from and after the expiration of one calendar month next after these present bye-laws, rules, orders and regulations shall have been printed, distributed and affixed in manner required and directed by the statute in that behalf, the same having been first allowed and approved of as required by the said statute, a meeting of harbour-masters shall be constituted and appointed amongst themselves, for the good government of the said harbour-masters, according to the rules, orders and regulations directed to be made by the said Acts of Parliament, and by these bye-laws, such meeting to consist of all the harbour-masters at present appointed, or who shall hereafter be appointed, and that any three of them, of whom the said principal or superintending harbour-master shall be one, and being present, shall be sufficient to form a meeting, and do all matters and things thereunto belonging, except in case of the illness or absence with leave of the principal or superintending harbour-master as before mentioned,

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and then three of the other harbour-masters, being present, shall be competent to transact the business of the meeting without the presence of such principal or superintending harbour-master; that such meeting shall be first held within 14 days next after the expiration of one calendar month after these present bye-laws, rules, orders and regulations shall have been printed, distributed and affixed as aforesaid, having been allowed and approved of as aforesaid, when the said harbour-masters shall begin, and from thence continue to hold a meeting once at least in every month, or oftener if required so to do; and at every such monthly meeting as aforesaid, all subjects tending to the improvement of the port of London, the removal of all obstructions and impediments to the navigation, whether arising from the formation of shoals or otherwise, shall be duly deliberated upon by the said harbour-masters; and they shall from time to time report the result of their deliberations to the said committee, who shall thereupon make and issue such orders and directions as to them shall seem necessary; and the said harbour-masters are hereby strictly enjoined to act, perform, do and execute all and every matter and thing, according to such orders as they and every of them shall from time to time receive from, or as may be given to them by the said mayor, aldermen and commons of the city of London, in common council assembled, or any committee appointed, or hereafter to be appointed, under and by virtue of the said Acts of Parliament.

Harbour-masters on duty to make reports to the principal or superintending harbour-master, who shall transmit the same to the committee for their direction, upon pain of suspension or dismissal.

17. And be it further ordained and established by the authority aforesaid, that in addition to the returns required to be made by the bye-laws as hereinafter mentioned, the said three harbour-masters, taking turns of duty, shall respectively report from time to time without delay any observations which the exigency of the service may require, or which they may deem it right to bring under the notice of the said principal or superintending harbour-master for the information of the said committee, and especially noting any impediments or obstructions which have occurred since the preceding report to the free transit of shipping through the Pools, the nature thereof, and whether such impediments and obstructions have been removed, and if not, the cause of their continuance; which reports, or copies thereof signed by himself, the said principal or superintending harbour-master shall transmit monthly to the said committee, with any remarks or observations he may have to offer thereupon; to whom also, as to a superior board, it shall be his duty to make intermediate reports on the instant of any occurrence of an especial nature, for their directions touching the subject-matter of such report; and either of the said four several harbour-masters making default shall be subject to suspension or dismissal.

No harbour-master to give directions for the repairs of his boat without the previous direction of the committee, except in certain cases.

18. And be it further ordained and established by the authority aforesaid, that no harbour-master shall from henceforth, under any pretence whatsoever, give any directions for the repairs of his or their boat or boats, or for providing anything for the same, without the previous sanction of the said committee, unless the said committee shall at any time or times deem it proper and expedient to give authority to the meeting of harbour-masters to direct and cause such repairs or provisions to be made or done without the previous sanction of the said committee; and in that case the said meeting of harbour-masters shall report to the said committee the particulars of such repairs and things provided as the said meeting of harbour-masters shall have so directed.

Harbour-masters not to be concerned in any other business, profession, &c.

19. And in order the better to facilitate the business of the port of London, be it further ordained and established by the authority aforesaid, that neither of the said harbour-masters shall, during the time of his continuing in that office, either by himself or any other, directly or indirectly, follow, exercise or carry on or be concerned in any trade, business or profession whatsoever, but shall fully, truly and honestly devote the whole of his time and attention in fulfilling and executing the duties of the said office of harbour-master.

Harbour-masters to take soundings from time to time, according to the Trinity standard, and report to the committee upon pain of suspension or dismissal.

20. And in order that the navigation of the said port and river may be improved, be it further ordained and established by the authority aforesaid, that the harbour-masters shall and do from time to time take soundings at low-water mark between London Bridge and Bugsby's Hole aforesaid, according to the standard used by the officers of the Trinity House, and report the same to the said committee, upon pain of suspension or dismissal for every default.

Harbour masters to keep such books and accounts as committee may from time to time think necessary.

21. And be it further ordained and established by the authority aforesaid, that the harbour-masters shall keep proper accounts and books, according to the direction of the said committee, for the due regulation of the harbour service; which said books and accounts shall be from time to time laid on the table of the said committee for their inspection and approbation, and for such directions as such committee shall see fit to issue in consequence thereof.

Harbour-masters to make such returns of ships as committee may direct, and transmit same to the committee.

22. And be it further ordained and established by the authority aforesaid, that the said three harbour-masters, doing turns of duty according to the regulations hereinbefore mentioned, shall make such returns of ships as the said committee may from time to time direct; which said returns shall be transmitted to the town-clerk's office of the said city, to be laid before the said committee.

Harbour-masters, &c. not to receive any gratuity or show any favour, but to moor vessels according to their judgment, keeping a free passage.

23. And be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master, or the said three other harbour-masters, or any or either of them, or any clerk, officer, waterman or other person employed by or under the direction of the said committee, shall not, under any pretence, accept or receive from any person or persons whomsoever any gratuity, fee or reward, directly or indirectly, for anything done or omitted to be done by him, them or any of them, in the discharge of their several

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and respective duties or employments; nor shall they or any or either of them give any preference or show any favour or partiality in the mooring, unmooring, moving, removing, anchoring, lying, placing or being of any ship, vessel, steam-boat, lighter, barge, boat or other craft, or in any other matter or thing regarding their respective duties, but shall direct the mooring or anchoring thereof in such manner as her size, draft of water, the trade wherein she is employed, and the competency of the moorings, in his or their fair and impartial judgment shall require, due care and attention being always had by the respective harbour-masters, who are hereby strictly enjoined to preserve such free and unobstructed passage as hereinafter mentioned; and that in every case in which the harbour-masters for the time being, or any or either of them, shall direct or permit any ship, vessel, steam-boat, lighter, barge, boat or other craft, to moor, anchor or be placed in such a situation as shall diminish the width of the passage hereafter mentioned; or in case any ship, vessel, steam-boat, lighter, barge, boat or other craft, so improperly moored, anchored or placed, whether by the direction of the harbour-masters, or any or either of them, or otherwise, shall remain there for the space of two hours during flood-tide, after the commencement of the next tide, without receiving a written or printed, or partly written and partly printed, notice from one of the said harbour-masters on duty to remove; or in case such harbour-masters shall fail to cause her to be removed, as required by the Acts of Parliament for regulating the port of London, if such notice be disregarded for the time therein specified, he or they shall forfeit and pay in each and every such case any sum not exceeding 5*l.*

Penalty in case of default or for omitting to give notice to remove vessels improperly moored, or for not removing after notice, 5 *l.*

24. And for the purpose of preserving a free passage between Iron-gate Stairs and Bugsby's Hole, of such sufficient width that ships, vessels and steam-boats of large dimensions and draft of water respectively may navigate up and down the same without impediment or risk, be it further ordained and established by the authority aforesaid, that the width of such passage for ships, vessels and steam-boats (except only when rendered impracticable by unavoidable casualties) shall not be less than 250 feet; and in all parts of the river Thames and port between Iron-gate Stairs and Bugsby's Hole, wherein such passage shall be between a tier of ships, vessels or steam-boats and the shore, the said space of 250 feet shall be accounted from the outermost ship, vessel, steam-boat or other craft in the tier to the low-water mark of spring-tides; and in all parts of the river and Pools within the aforesaid limits, wherein such passage shall be in the stream between tiers of ships, vessels, steam-boats or other craft, the said passage of 250 feet shall be accounted from the outermost ship, vessel or steam-boat or other craft in the one tier to the outermost ship, vessel, steam-boat or other craft in the other or opposite tier.

Width of passage for ships, &c. of large dimensions between Iron-gate Stairs and Bugsby's Hole, not to be less than 250 feet.

25. And be it further ordained and established by the authority aforesaid, that the harbour-masters for the time being shall provide the greatest possible accommodation for shipping in the coasting and other trades, between London Bridge and Iron-gate Stairs, that shall be compatible with the maintenance of a navigable passage of not less than 200 feet, for ships, vessels, steam-boats and craft passing up and down that part of the said river.

Harbour-masters to provide accommodation for shipping between London Bridge and Iron-gate Stairs, maintaining a passage of 200 feet.

26. And be it further ordained and established by the authority aforesaid, that the undermentioned tiers shall be used exclusively by collier ships or vessels, which shall be placed as near to the respective shores as the depth of the water will permit; and that no more collier ships or vessels shall be permitted to be and remain placed, moored and distributed thereat at one and the same time than the number hereafter respectively specified; (that is to say),

Number of colliers to be moored in the respective tiers.

On the north side of the said river:

At Coles-stairs tier, not exceeding the number of 11 ships to be moored with their heads up the river, and 11 ships to be moored with their heads down the river.

At Bell-wharf tier, not exceeding the number of 11 ships to be moored with their heads up the river, and 11 ships to be moored with their heads down the river.

At Stone-stairs tier, not exceeding the number of 10 ships to be moored with their heads up the river, and 10 ships to be moored with their heads down the river.

At Ratcliffe-cross upper tier, not exceeding the number of eight ships to be moored with their heads up the river, and eight ships to be moored with their heads down the river.

At Ratcliffe-cross lower tier, not exceeding the number of eight ships to be moored with their heads up the river, and seven ships to be moored with their heads down the river.

On the south side of the said river:

At Hanover-hole upper tier, not exceeding the number of eight ships to be moored with their heads up the river, and eight ships to be moored with their heads down the river.

At Hanover-hole lower tier, not exceeding the number of 10 ships to be moored with their heads up the river, and 10 ships to be moored with their heads down the river.

At Mill-hole upper tier, not exceeding the number of 10 ships to be moored with their heads up the river, and 10 ships to be moored with their heads down the river.

At Mill-hole lower tier, not exceeding the number of nine ships to be moored with their heads up the river, and nine ships to be moored with their heads down the river.

Provided always, that when the whole number of collier ships or vessels are so placed, moored and distributed as aforesaid, then and in every such case the harbour-master or harbour-masters shall distribute any greater number at the most convenient other tiers or parts of the said river, and in such further numbers as shall allow of a free passage as before described, for all ships, vessels and steam-boats, so as to reserve and keep the aforesaid free passage of 250 feet; provided also, that whenever from the size and burthen of any ship or vessel so to be moored and placed at or in any of the respective tiers, or from any other cause, the space occupied by the number of ships appointed to be placed in any of the said

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tiers shall extend to encroach upon the width of the free passage as aforesaid, to be kept for ships, vessels and steam-boats, the number of such ships or vessels appointed to be moored at any such tier shall and may be reduced.

Harbour-masters to detain, between Deptford and Bugsby's Hole, all vessels coal-laden from entering the Pools, and to cause a flag to be hoisted at or near the office at Greenwich.

Penalty for any ship coal-laden proceeding higher up the river than Deptford after the flag is hoisted, or for removing from moorings without leave of one of the harbour-masters, 10 *l.*

27. And for the purpose of more effectually preserving a free passage of 250 feet as aforesaid, through the Pool, be it ordained and established by the authority aforesaid, that the harbour-masters shall, and they are hereby authorized and ordered to detain at any place between Deptford and Bugsby's Hole, all vessels coal-laden from entering the Pools, whenever the harbour-master whose turn of duty shall be on the lower station shall deem necessary; and whenever it shall appear to the said harbour-master on duty as aforesaid, that no more vessels coal-laden should proceed higher up the river than Deptford, then the said harbour-master shall cause a flag, half-red and half-white, to be hoisted on a flag-staff provided for that purpose at or near the harbour-master's office at Greenwich; and in case any master, pilot, or waterman or other person having the charge or command of any ship or vessel coal-laden, or in part coal-laden, shall proceed higher up the river than Deptford after the said flag is hoisted, or shall remove from their moorings without permission first obtained, either printed or written, or partly printed and partly written, from one of the said harbour-masters, he shall for every such offence forfeit and pay a sum not exceeding 10 *l.*

Harbour-masters to give notice for removal of any ship, &c. which is so moored as to encroach upon the passage; and in case notice is not complied with, to employ persons to remove same: penalty 10 *l.*

28. And be it further ordained and established by the authority aforesaid, that it shall and may be lawful for any of the harbour-masters to give a printed or written or partly printed and partly written notice for the removal, within a reasonable time to be therein specified, of any ship, vessel, steam-boat, barge, lighter, boat or other craft which shall at any time be so moored, anchored or placed as to encroach upon the free passage aforesaid, to such other place as he in his discretion shall see fit; and in case any person having the command, charge or management of any such ship, vessel, steam-boat, barge, lighter, boat or other craft, so ordered to be removed, shall refuse or neglect to comply with the said notice, then the harbour-master or harbour-masters are hereby authorized and directed to employ persons to remove the same, and the expense of such removal shall be paid by the master, owner or person so having the command, charge or management of such ship, vessel, steam-boat, barge, lighter, boat or other craft; and such master, owner or person shall, for such refusal or neglect, also forfeit and pay any sum not exceeding 10 *l.*

Penalty for laying at or mooring in any of the in-shore passages or ferries between London Bridge and Limehouse, so as to obstruct transit thereof, 5 *l.*

29. And for the purpose of preserving a free transit for craft and boats through the in-shore passages and ferries, be it further ordained and established by the authority aforesaid, that in case any owner, master, pilot, waterman, or other person having the command, management or charge of any ship, vessel, steam-boat, barge, lighter, boat or other craft, shall lay at, place, make fast, or moor the same in any of the in-shore passages or ferries between London Bridge and Limehouse, so as to obstruct the transit of any other ship, vessel, steam-boat, barge, lighter, boat or other craft, he shall for every such offence forfeit and pay any sum not exceeding 5 *l.*; and it shall be lawful for any harbour-master and his assistants, and such persons as he may direct, to moor, unmoor and remove forthwith such ship, vessel, steam-boat, barge, lighter, craft or other boat, and the charges and expenses thereof respectively shall be paid by the owner or master thereof.

No raft of timber exceeding 60 feet in length and 20 feet in breadth to pass along the stream between Limehouse Hole and London Bridge; and no such raft exceeding 40 feet in width to pass along any other part of the stream between Limehouse Hole and the lower part of Bugsby's Hole; nor two or more rafts to go abreast, nor more than three lengthways, or for any following raft to come within 300 yards of another;

Penalty 5 *l.*

30. And be it further ordained and established by the authority aforesaid, that it shall not be lawful for any float or floats, or raft or rafts of timber, either singly or together exceeding 60 feet in length (except timber in one length) and 20 feet in width, to go into or pass along any part of the stream of the said river between Limehouse Hole and London Bridge; nor for any float or raft of timber exceeding 40 feet in width to go into or pass along any other part of the stream of the said River Thames and port between Limehouse Hole and the lowest part of Bugsby's Hole aforesaid; or for any two or more floats or rafts of timber to go or float abreast, or for more than three in one body to go into or pass along any part of the said stream between London Bridge and Bugsby's Hole aforesaid, lengthways; or for any following float or raft to go within the distance of 300 yards of any other float or raft floating upon the said stream within the limits last-mentioned: and if any raft or float of timber exceeding 60 feet in length (except as aforesaid) and 20 feet in width, be found in any part of the said stream between Limehouse Hole and London Bridge; or if any float or raft of timber exceeding 40 feet in width, or any two or more going or floating abreast, or more than three in any one body lengthways, or any following float or raft within the distance of 300 yards of any other float or raft, be found in any part of the said stream between London Bridge and Bugsby's Hole aforesaid, then and in all or any of the said cases, the owner or owners of any such float or raft, or the person or persons accompanying, managing, directing, rowing or towing the same, or any of them, shall forfeit and pay the sum of 5 *l.*

Barges, boats, and other craft to pass singly;

Penalty 40 *s.*

31. And be it further ordained and established by the authority aforesaid, that every barge, lighter, boat or other craft, which shall hereafter navigate or pass along any part of the said river or port within the limits aforesaid, shall singly and separately pass along the same; and if any two or more barges, lighters, boats or other craft, lashed, fastened or in any manner whatsoever connected together, shall be found navigating or passing within the limits aforesaid, the owner or owners of each and every such barge, lighter, boat or other craft, or the person or persons navigating or conducting the same, or any of them, shall forfeit and pay the sum of 40 *s.*; provided that nothing in this regulation contained shall be construed to extend to the prevention of any luggage-boat, skiff, wherry or ship's boat being lashed or fastened together or towed at the stern of any such barge or lighter as aforesaid, or to any other craft not exceeding the burthen of 10 tons.

32. And

32. And be it further ordained and established by the authority aforesaid, that, during all the time that any such barge, lighter, boat or other craft shall be navigating or passing along the said river and port within the limits aforesaid, one able and skilful man, or other person authorized by law, at the least, shall be constantly on board the same for the navigation and management thereof; and if the owner or owners of any such lighter, boat, barge or craft shall permit or suffer the same to pass along any part of the limits aforesaid without having at least one such able or skilful man or other person authorized as aforesaid to navigate the same, he or they or any of them shall forfeit and pay the sum of 40 *s.*; and if the person or persons so appointed shall quit or leave the said barge, lighter, boat or other craft at any time during the navigation or passage through the said last-mentioned limits, he or they shall forfeit and pay the sum of 40 *s.*; and it shall be lawful for any harbour-master and his assistants to remove the said barge, lighter, boat or other craft, and the charges and expenses thereof respectively shall be paid by the owner or master of such barge or other craft.

Every barge to have one able and skilful man at least always on board; and owners omitting to appoint such to forfeit 40 *s.*;

and such person appointed leaving his craft to forfeit 40 *s.*

33. And be it further ordained and established by the authority aforesaid, that when and so often as any anchor shall be dropped or let down into the stream from any ship, vessel, steam-boat or other craft, for the purpose of stopping tide or mooring in any part of the said river of Thames and port within the limits aforesaid, there shall be bent to the same a proper and sufficient buoy and buoy-rope; and the master, captain or other person having the command, direction or management of any ship, vessel, steam-boat or other craft, who shall drop or cause to be dropped or let down into the stream any anchor for the purpose of stopping tide or mooring, without having a sufficient buoy-rope bent thereto, shall for every such offence forfeit and pay the sum of 40 *s.*

Anchor dropped to have sufficient buoy and buoy-rope bent thereto;

Penalty 40 *s.*

34. And be it further ordained and established by the authority aforesaid, that no anchor or anchors shall be suffered to lie or remain in the stream without the line of the tiers, so as to endanger any ship, vessel, steam-boat or other craft navigating the said river and port within the limits aforesaid; and the master, captain or other person having at the time the command, management or charge of any ship, vessel, steam-boat, lighter, barge, boat or other craft, who shall permit or suffer the anchor or anchors thereof so to lie or remain as in any way to endanger the ships, vessels, steam-boats or other craft passing up and down the said river and port within the limits aforesaid, and shall not remove such anchor or anchors within a reasonable time after a printed or written or partly printed and partly written notice is delivered on board such ship, vessel or steam-boat, signed by any one of the harbour-masters; or who shall bring up, stop or place any such ship, vessel, steam-boat, lighter, barge, boat or other craft, so as to obstruct the aforesaid passage of 250 feet; or if, after lying in any tier, he shall, on quitting the same and getting into the stream of the fair way, let go an anchor, or permit or suffer the same to be done (except for the purpose of navigating his ship, vessel or steam-boat), or shall deliver any part of the cargo, or take in ballast whilst lying in the stream of the fair way, until he shall have arrived below or to the southward of Limekiln Dock, then and in either of such cases he shall for every such offence forfeit and pay a sum not exceeding 5*l.*; and the harbour-masters are hereby respectively ordered and directed to remove such anchor or anchors so suffered to lie or remain in the stream aforesaid at the owner or owners' expense.

Anchors not to lie or remain in the stream to endanger ships, &c.

Penalty 5 *l.*; and harbour-masters to remove the anchors at owners' expense.

35. And be it further ordained and established by the authority aforesaid, that no ship, vessel, steam-boat or other craft shall navigate or lie in the said river between Bugsby's Hole and London Bridge with its anchor or anchors a-cock-bill, that is to say, hanging perpendicular by the stopper from the cat-head; and the master, captain or other person having at the time the command, direction or management of any ship, vessel, steam-boat or other craft, who shall permit or suffer the anchor or anchors thereof so to be carried a-cock-bill, except while in the act of fishing the same, or during such time as may be absolutely necessary for getting such ship, vessel, steam-boat or other craft under way, or bringing her to an anchor, shall for every such offence forfeit and pay the sum of 5*l.*; and for every such anchor so carried forfeit and pay the further sum of 40 *s.*

No ship or vessel to be navigated with anchor a-cock-bill,

except in certain cases.

Penalty 5*l.*; and for every anchor 40 *s.*

36. And be it further ordained and established by the authority aforesaid, that no ship, vessel, steam-boat or other craft shall navigate or lie in the said river and port, with its anchor or anchors hanging by the cable perpendicular from the hawse, unless the stock shall be a-wash; and the master, captain or other person having at the time the command, direction or management of any ship, vessel, steam-boat or other craft, who shall permit or suffer the anchor to be carried hanging by the cable perpendicular from the hawse, unless the stock shall be a-wash as aforesaid, shall for every such offence, and for every anchor so carried, forfeit and pay the sum of 5*l.*; provided always, that no master, captain or other person, having at the time the command, direction or management of any ship, vessel, steam-boat or other craft, shall be subject or liable to any penalty for having the anchor hanging by the cable perpendicular from the hawse, during such time as may be absolutely necessary for catting or fishing the same, or during such time as may be absolutely necessary for getting such ship, vessel or steam-boat under way.

No ship or vessel to be navigated with its anchor hanging by the cable;
Penalty 5 *l.*;

except during such time as may be necessary for catting and fishing.

37. And be it further ordained and established by the authority aforesaid, that in the loading or unloading of all ships, vessels, steam-boats or other craft, in any tier in the said river and port within the limits aforesaid, when and as often as it may be found requisite and necessary for craft to be alongside for the purpose of receiving or delivering goods or ballast, it shall and may be lawful for the harbour-master or harbour-masters to direct and require the captain or other person on board having the command or management of any such ship,

Ship to slack off when required by the harbour master;

Penalty 5 *l.*

vessel, steam-boat or other craft as aforesaid, to slack off the same; and if such captain or other person on board having the command or management of any such ship, vessel, steam-boat or other craft, shall refuse or neglect to slack off when so required by the harbour-master or harbour-masters, he shall forfeit and pay for every such offence the sum of 5 *l.*

Ships not to be boomed off, unless to admit lighters; and when in tier to be laden over the bows, unless from weight or bulk it may be necessary to load alongside; and masters of ships to obey directions of harbour-master;

38. And be it further ordained and established by the authority aforesaid, that no ships, vessels, steam-boats or other craft, which shall hereafter be laid or stationed in any tier in the said river and port within the limits aforesaid, shall lie or be boomed off from each other, unless when necessary for the purpose of admitting any lighters or other craft alongside the same as hereinafter mentioned; and all such ships, vessels, steam-boats or other craft (except the outward ship, vessel, steam-boat or other craft, at each end or extremity of every such tier) shall be laden over the bows and not otherwise, unless from the weight or bulk of the goods, or the nature of the merchandize, it shall be deemed necessary to load the same alongside; and when and so often as it shall be found necessary by the harbour-master or harbour-masters to load such goods alongside, every master, captain, officer, seaman or other person having at the time the command, direction or management of any such ship, vessel, steam-boat or other craft lying in the said tier, when required so to do, shall, as speedily as possible, slack all the breastfasts of such ship, vessel, steam-boat or other craft of which he has the command, direction or management as aforesaid, for the purposes aforesaid; and if the person so having the command, direction or management of any ship, vessel, steam-boat or other craft, being in any tier within the said limits, shall permit the same to lie or be boomed off or be laden otherwise than over the bows (except as aforesaid), or shall not, when required for the purposes aforesaid, slack off the breastfasts of such ship, vessel, steam-boat or other craft as speedily as possible, or shall not obey and execute all and every the necessary orders and directions of the harbour-master or harbour-masters, in relation to the mooring, unmooring, placing, managing or removing his ship, vessel, steam-boat or other craft, in all and every of the said cases the person offending shall forfeit and pay the sum of 40 *s.*

Penalty 40 *s.*

Ships moored across the river, with hawser or rope, to slack the same when other vessels are going with the tide;

39. And be it further ordained and established by the authority aforesaid, that every master, captain, seaman or other person, having at the time the command, direction or management of any ship, vessel, steam-boat or other craft, which shall be moored or navigating on any part of the said river Thames and port, from London Bridge to Bugsby's Hole aforesaid, with a warp or hawser, or having a rope across for any purpose whatever (unless in the act of entering or departing from any dock), shall slack the same down on the approach of any other ship, vessel, steam-boat, lighter, barge or other craft, which shall be proceeding, dropping or sailing with or against the tide, on pain of forfeiting and paying for every neglect or refusal a sum not exceeding 5 *l.*

Penalty 5 *l.*

Penalty for obstructing harbour-masters 10 *l.*

40. And be it further ordained and established by the authority aforesaid, that if any master, pilot, waterman or other person, having the command, direction, management or charge, or being employed on board of any ship, vessel, steam-boat, barge, lighter, boat or other craft, shall in anyway hinder or obstruct the harbour-masters, or any or either of them, in the execution of their or his duty, every person so offending shall forfeit and pay for every such offence a sum not exceeding 10 *l.*

Harbour-masters to order yards and topmasts to be struck when necessary for general safety.

41. And be it further ordained and established by the authority aforesaid, that it shall and may be lawful to and for the said harbour-masters, or any or either of them on duty as aforesaid, to order the yards and topmasts of all ships, vessels or steam-boats, lying or being in the said river Thames and port, between London Bridge and Limehouse, to be struck, whenever in the judgment of any or either of the said harbour-masters it shall be proper and expedient for the general safety so to do; and every master, captain, seaman or other person having the command, direction or management at the time of any ship, vessel or steam-boat, whose yards and topmasts shall be so ordered to be so struck as aforesaid, shall immediately obey such order, on pain of forfeiting for every such refusal the sum of 40 *s.*

Refusing to strike topmasts, &c. penalty 40 *s.*

Not to extend to any docks, &c. or the distances therefrom prescribed by Acts of Parliament, nor to vessels belonging to the Trinity House, or to affect the rights of the Lord High Admiral, or the lord mayor as conservator.

42. Provided always, that nothing herein contained shall extend or be meant to extend to give to the said harbour-masters, or any or either of them, any power or authority whatsoever over any dock or docks with their appurtenances, or within the limits adjoining to the said dock or docks in the said river, or such other parts of the same river as are within the respective distances prescribed by any Act or Acts of Parliament for establishing such dock or docks; or over any ship, vessel, steam-boat, lighter or craft, belonging to the corporation of the Trinity House of Deptford-strond, or in any manner whatsoever to affect any of the rights or privileges belonging to the same; or to prevent the Lord High Admiral of Great Britain, or the Commissioners for the time being for executing the said office, from laying chains or other things for mooring or stationing ships or vessels belonging to His Majesty in any part of the said river and port below the dock called Greenland Dock, as the said Lord High Admiral or Commissioners shall from time to time think proper; or to prejudice any of the rights, interests, privileges, franchises or authority of the lord mayor of the said city of London for the time being, or to defeat or alter any power, authority or jurisdiction which he may or otherwise might lawfully claim, use or exercise, as conservator of the river of Thames and waters of Medway; but the same are severally excepted therefrom.

For limiting the velocity of steam-vessels.

43. And whereas great inconveniences are experienced in the said port of London, and numerous accidents, damages, losses and expenses are sustained by persons navigating vessels upon the said river of Thames, in consequence of the velocity or rapidity with which steam-vessels are frequently navigated upon the said river; and whereas for the remedy of the said grievance, and for the protection and security of all other vessels, craft, lighters and boats, and persons navigating upon the said river within the limits aforesaid, it is deemed requisite by the said mayor, aldermen and commons of the said city, in common council assembled, to make certain rules, orders and regulations, to be duly observed by the masters and owners, and all persons navigating or having the conduct and management of steam-

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vessels upon the said river; be it therefore ordained and established by the authority aforesaid, that the master, captain or other person having the command, direction or management of any steam-vessel upon the said river of Thames, within the limits aforesaid, shall be particularly on his guard when coming near deep-loaded barges or other craft, passage-boats, skiffs or wherries, to check the rate or velocity of such steam-vessel, on pain of forfeiting, for every case in which injury or damage shall ensue from his neglect or omission so to do, any sum not exceeding 10*l.*, in addition to such sum or sums as he may be liable to pay to the person or persons sustaining such injury or damage as aforesaid.

Masters of steam-vessels to check their velocity when coming near deep-laden barges, passage-boats, &c.

44. And be it further ordained and established by the authority aforesaid, that the master, captain or other person having the command, direction or management of any steam-vessel, shall, when navigating the said river above or to the westward of the Limehouse entrance to the West-India Docks, throttle the valves of the steam-engine or engines on board the vessel under his command, direction or management as aforesaid, or otherwise regulate such engine or engines, so that the number of the strokes thereof shall be reduced to one-half of the number of strokes required to propel the vessel at full speed; and in no case shall any steam-vessel, when navigating the said river above or to the westward of the said entrance to the West-India Docks, be propelled at a greater rate than five miles or knots per hour; and the master, captain or other person, having the command, direction or management of any steam-vessel, who shall fail to reduce the number of strokes of the engine or engines on board his said vessel in the manner above directed, or who shall propel or cause the same to be propelled at a greater rate than aforesaid, when navigating within the last-mentioned limits, shall for each and every such offence forfeit and pay any sum not exceeding 10*l.*, unless it shall appear to the justice of the peace before whom any complaint shall be exhibited, that the speed of such vessel could not be immediately reduced without evident danger or risk of committing damage, or that the speed thereof was increased for the express purpose of avoiding such danger or risk.

Strokes of the engine to be reduced to half-speed westward of the Limehouse entrance of the West India Docks.

45. And be it further ordained and established by the authority aforesaid, that in case any steam-vessel cannot arrive before it is dark at its moorings or place of destination upon the said river at any point between London Bridge and the Limehouse entrance of the West-India Docks, the master, captain or other person, having the command, direction or management of any such steam-vessel, shall and he is hereby required to hang one lanthorn with a strong light at the mast-head, and another before the stem and under the bowsprit of such steam-vessel, on pain of forfeiting for every such neglect or omission to hang out such lanthorns with strong lights, any sum not exceeding 10*l.*

Steam-vessels navigating between London Bridge and the Limehouse entrance of the West India Docks, to have lanthorns with strong lights at the mast-head and under the bowsprit.

EVIDENCE and DOCUMENTS submitted to the Thames Navigation and Port of London Committee, in relation to the Bye-laws for regulating the Harbour Service of the Port of *London*, and the Proceedings of the Committee in respect thereof, during the Years 1832–3 and 1835.

Copeland, Mayor.

A Common Council, holden in the Chamber of the Guildhall of the City of London, on Wednesday the 2d day of December 1835.

RESOLVED, That the whole of the Documents and Evidence adduced before the Thames Navigation and Port of London Committee, in relation to the Bye-laws for regulating the Harbour Service of the Port of London, be printed, and a copy thereof sent to every member of this court. *Woodthorpe.*

MINUTES OF EVIDENCE.

Friday, 5 *October* 1832.

Committee for improving the Navigation of the River Thames, and for preventing Encroachments on the said River, and also to carry into execution the Act of Parliament for rendering more commodious and for better regulating the Port of London.

EDWARD TICKNER, Esq. in the Chair.

1. CAPTAIN JOHN FISHER, the principal or superintending harbour-master, attending, laid before the committee the correspondence between him and Sir John Hall, the secretary of the St. Katharine Dock Company, respecting the navigation in the Lower Pool, which correspondence was read as follows:

2. Sir, St. Katharine's Dock-house, 20th September 1832.

I am directed by the board of the St. Katharine's Dock Company to transmit, for the information of the board of harbour-masters, the accompanying letter from Mr. Francis Woodnot, the pilot of the Emulous, and to add that Captain Martin, of the City of London steam-boat, reports this afternoon, that there was scarcely room for his vessel to pass through the Lower Pool. It is needless for me to urge upon the attention of your board the importance of keeping a channel of 300 feet clear; but I am instructed to invite your particular attention to the fact of there being 26 ships moored in Ratcliff-cross tier this morning; and one

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of the harbour-masters, being near the place, must have observed this gross violation of the bye-law.

I am, Sir, your obedient servant,

To Capt. Fisher, R. N., Superintending Harbour-master.

(signed) *J. Hall*, Secretary.

3. Mr. Hall, Sir, London, 20 September 1832.

This is to inform you, in towing the Emulous, Captain M'Naughten, from Gravesend to the St. Katharine's Dock by steam, got athwart the off-side ship in Ratcliff-cross tier, which could not prevent, without going on the causeway, through being 26 ships in the tier, there not being 300 feet channel. Francis Woodnot, pilot, 24, Dean-street, Lower Shadwell. The harbour-master came immediately afterwards.

I am, Sir, your obedient servant,

(signed) *Francis Woodnot.*

4. Sir, Harbour-master's Office, Greenwich 24 September 1832.

I was yesterday in the perusal of two letters, one from Sir John Hall, and the other from the pilot of the brig Emulous, dated the 20th September. I have to observe that the cause of the Emulous being athwart hawse was owing to the want of judgment in the pilot, in not taking a passage to the southward of the vessels driving properly through the Pool, or in not rounding his vessel to the tide, and driving in like manner in safety as other vessels did during the same flood, notwithstanding the additional obstruction caused by the Emulous (which was athwart the three outside vessels heads down, and within the line of the tier), by parting the tier into the navigation. I deny that there were 26 vessels in the tier; I counted them at the time, and made my remarks, and the Euphemia and Braunsberg had received orders to remove. It was not likely that Captain Martin should find plenty of room through the Pools, when he had in tow a large vessel like the Henry Porcher, against a flood tide, with a number of vessels driving properly to their destination. I have observed before that the danger and difficulty of towing vessels by steam with and over the flood-tide (not only to the vessel herself, but dangerous to the whole shipping in the river), ought to be regulated, if not altogether prevented.

I am, Sir, your most obedient servant,

To Capt. Fisher, R. N., Principal Harbour-master. (signed) *Charles Rowland.*

5. Dear Sir, Harbour-masters' Office, St. Katharine's, 25 September 1832.

I should have answered your letter of the 20th inst. ere this, but as I wished to get a written statement from Mr. Rowland, (the harbour-master on duty), who was present, and saw the Emulous get athwart hawse at Ratcliff-cross tier, I deferred doing so until I received it, a copy of which I beg leave to inclose. Shortly after the Emulous got athwart the tier, I was in that part of the Pool, and remained there until the steamer took her in tow again for the St. Katharine's Docks, and from what I could see of the business it appeared the accident was caused solely by the inexperience of the pilot, as there was sufficient space for navigating a vessel of any size through the Pools; and I am confident had he gone to the southward of the vessels, passing up, he would not have come near the tier. You must be aware that when vessels are driving up the Pools with the westerly wind, and steamers towing vessels up and down the river, there must be much confusion, and occasionally damage; and I have always recommended in those cases vessels bound up to cast off the steamers and drive through the Collier Pools, which will be the means of conducting them up to the docks in safety. I understand Francis Woodnot, the pilot of the Emulous, has just been made, and of course not sufficiently experienced in conducting vessels with steamers, as is proved in this case by so many vessels passing through the Pools on that day in safety. It was his duty to have cast off the steamer, and rounded the vessels too, off Limehouse, and drove clear of the collier-tiers, and then taken in tow again for the docks. You must be further aware that the harbour-masters cannot take upon themselves to stop vessels passing up the Pools, to make way for steamers towing vessels to and from the docks.

I am, dear Sir, yours truly,

To Sir John Hall, K.C.H. &c. St. Katharine's Dock.

(signed) *John Fisher,* Principal Harbour-master.

6. Sir, St. Katharine's Dock-house, 25 September 1832.

Having laid your letter of this day before the board of directors, I am desired to acquaint you, that the chief point of complaint has been left unnoticed, namely, as to there not being a clear channel of 300 feet between the outermost vessel and low-water mark in the Lower Pool, on the day in question; and, as it appears that Mr. Rowland counted the vessels in the tier alluded to, it would have been more satisfactory to the board, if he had been kind enough to state how many vessels he admits there were in Ratcliff-cross tier at the time, over and above the number permitted by law (which fact he does not deny), as the two pilots, the captain and mate, all agree as to the number stated in my letter of the 20th instant; and further, that the passage (which could not, under the circumstances, be otherwise), was so extremely narrow that, if they attempted to go to the southward of the brig dropping up at the time, as suggested, the Emulous must have run on shore near Globe-stairs.

With respect to Captain Martin's statement, Mr. Rowland has erroneously assumed that it applied to the period of towing down the Henry Porcher; whereas his observations referred to the afternoon, when he returned from Gravesend after towing down that ship in perfect safety: but it cannot escape the observation of your board, that, in nearly every instance, the steamers employed to tow down large ships are wider across the paddle-boxes than the ship in tow, and that, whenever there shall not be room to pass, the channel cannot present

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even a free passage of 45 feet, instead of 300 required by the bye-law; it being equally manifest that, if the channel of 300 feet be properly kept, that plenty of room would exist for vessels dropping up or running down, without impeding the navigation. The board desire me to add, therefore, that they are perfectly satisfied that the complaint in this instance was well founded; and that all the complaints which constantly reach this establishment, as to the navigation of the Pool, are chiefly, if not wholly, attributable to the channel of 300 feet not being kept; whilst the most conclusive answer to any such complaint would be, for the harbour-masters to enforce strictly the bye-law in that respect, without which it is impossible to prevent obstruction to the navigation of the river.

I am, Sir, your obedient servant,

To Capt. Fisher, R.N. &c. (signed) *John Hall*, Secretary.

7. Sir, Harbour-masters' Office, Greenwich, 27 September 1832.

In reply to the letter of Sir John Hall, dated the 25th September, I beg to state that there were 24 sail of vessels in Ratcliff-cross tier on the 20th September; and by my minutes of that day, there were two light vessels, the Providence and Recovery, going out, and the two outside vessels, the Braunsburg and Euphemia, from outside the same tier, were ordered away at the same time. I declare there was good room for the purposes of navigation.

I am, Sir, your obedient servant,

To Captain Fisher, R.N., &c. (signed) *Charles Rowland*

8. Sir, Harbour-masters' Office, St. Katharine's, 29 September 1832.

In reply to your letter of the 25th instant, I beg leave to state that the whole of the complaint of the pilot of the Emulous on the state of the navigation on the 20th instant, was not correct. With respect to there not being 300 feet perhaps he is right; but there was sufficient space for navigating a vessel of any size through any part of the Pool, if piloted by a man who understood his duty, which Mr. Warner, a pilot, who was on board the Emulous, can vouch for. And it appears by the regulations of the Trinity House that Francis Woodnot, the pilot, was not authorized in bringing up a vessel of the draught of water of the Emulous. At the time the Emulous got athwart hawse there were 24 vessels in the tier; the two outside and two inside were removed at high-water, which could not have been done before. You must be aware of the difficulties the harbour-masters have to contend with in finding berths for colliers since the opening of the Shadwell entrance of the London Dock, 600 feet being allowed to that company by Act of Parliament, which deprives the public of two whole tiers; likewise the space pointed out for collier-tiers by the bye-laws, between King James's-stairs and Wapping Dock, and below the Regent's Canal, are not available for want of water. Two hundred and fifty sail of colliers is allowed in the Pool by the bye-laws, and it seldom occurs that more than 150 is permitted up at one time, in order to preserve a free passage of navigation; and it cannot be presumed that the harbour-masters can be accountable for any unskilful act of a pilot or accident that may happen in the Pools.

In conclusion, the harbour-masters have always endeavoured in the execution of their duties to give general satisfaction to the public, without being biassed by any particular interest.

I am, Sir, your obedient humble servant,

To Sir John Hall, K.C.H., &c. (signed) *John Fisher*, Principal Harbour-master.

9. Sir, St. Katharine's Dock-house, 1 October 1832.

Having laid your letter of the 29th ult. before the board of directors of the St. Katharine's Dock Company, I am directed to acquaint you that they concur in opinion with you, that the chief cause of the Emulous having got athwart in the Lower Pool may be assigned to the want of experience and judgment of the pilot who had charge of the vessel; but, at the same time, I am again to press upon your consideration the imperative necessity of the 300 feet channel being preserved, the regulations as to number of colliers, mooring, &c. being all made dependent upon that regulation; and if the harbour-master on duty at the time in question had prevented the four extra ships from making fast to the tier, the necessity of removing them would have been avoided, and the pilot and owners of the ship would not have had the opportunity of attributing the cause of the Emulous being impeded from the narrow channel in the Pool.

I am, Sir, your obedient servant,

To Captain Fisher, R.N., &c. (signed) *J. Hall*, Secretary.

10. My dear Sir, St. Katharine's Dock-house, Monday, 5 o'clock, 1 Oct. 1832.

I have just had two shipowners with me, complaining of the shameful state of the Pool. Pray have you seen it this day? We shall have a large arrival, and therefore some extraordinary exertion must be used to keep the 300 feet clear.

Yours, faithfully,

To Captain Fisher, R.N., &c. (signed) *J. Hall.*

11. My dear Sir, St. Katharine's Dock-house, 2 October 1832.

In consequence of the representation made here yesterday, by the parties who came up by the Gravesend boat, of the state of the Pool, I sent down, and I find that there were no less than 24 ships moored in Stone-stairs and in Ratcliff-cross upper tier, being six more in each than allowed by the bye-law. I will not repeat what the gentlemen stated (one of them late a leading member of the corporation, and well acquainted with the regulations as to keeping a clear channel), but I must say that the bye-laws are a mere farce, and the navigation of the river impracticable with safety, through the Pool, if these glaring infractions of the regulations are thus permitted.

Yours, faithfully,

To Captain Fisher, R.N., &c. (signed) *J. Hall.*

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12. Sir, Harbour-masters' Office, St. Katharine's, 2 October 1832.
In reply to your letter of yesterday evening, I have only to say that the parties who informed you of the state of the Pool yesterday are in error; for, on my quitting it at about half-past three, the navigation was open and clear, and the vessels laying so well in the tiers that I did not consider it at all necessary to number them, and during the whole of the flood the fore and aft vessels were turning up through the Pools. Captain Scott of the Venus, and Captain Martin of the City of London, steam-vessels, stated to me last evening that they never could wish to see the navigation more clear or open, which the person you sent to examine the Pools, if he chooses, can vouch for. It is a most extraordinary thing that we never receive any complaints from the London Docks, who always appear perfectly satisfied with the exertion that is made to keep open a clear navigation. You will oblige by favouring me with the names of the two shipowners who made the complaints respecting the Pool.
I am, Sir, your obedient humble servant,
To Sir John Hall, K. C. H., &c. (signed) *John Fisher*, Principal Harbour-master.

13. My dear Sir, St. Katharine's Dock-house, 2 October 1832.
I have written to the parties for permission to state their names to your board, which I trust they will authorize me to do, although from my note to you this morning you may, I should think, conjecture who one of the gentlemen is. As far as regards the London Dock Company not making any complaint, I have been told that they are impressed with the notion that it would be of no avail; besides which, it must be evident that any obstruction above the Shadwell entrance affects us much more than them; and that after all, in all the late complaints, it always appears that there are grounds for it, as in this last instance, for whatever may be said of the clear and open state of the navigation of the Pool, it is evident that the bye-laws were in this case infringed, as there were more than 18 ships in the tier, and not a channel clear of 300 feet between the outermost ships and low-water mark.
I am, my dear Sir, yours, faithfully,
(signed) *J. Hall.*

If you had been able to dispute the fact of the number of ships in the tier, I would have sent you the names of the parties at once, but as they appear to have been right (whatever may be said of the ships lying snug), I deemed it necessary to apply to them first.
To Captain Fisher, R. N., &c.

14. My dear Sir, St. Katharine's Dock-house, 3 October 1832.
I transmit you annexed a copy of the answer I have received upon my application to disclose the name of my informant. I am, my dear Sir, yours, faithfully,
To Captain Fisher, R. N., &c. (signed) *J. Hall.*

15. My dear Sir, George Yard, 3 October 1832.
So far from having any objection to the mention of my name in the affair to which you refer, I wish it mentioned, because I should upon such matters never say anything to you that I would not have said to Mr. Tickner, Captain Fisher, or any of the other harbour-masters, if I had met them instead of you. I came up from Gravesend in the eight o'clock boat (I believe the Kent), and came through the Pool after half-ebb; there was nothing passing either one way or the other, but if there had been, confusion must have occurred, for there were 26 ships in some of the tiers, or rather I should say 13 head-up, for I did not count the other side, though I believe it was full. Mr. ————, who was with me, counted 14 head-up in one tier, but I do not wish his name mentioned. Yours, truly,
To Sir John Hall, K. C. H., &c. *Wm. Routh.*

16. Captain Fisher was heard thereon, and stated that the harbour-masters did all they could to carry the bye-laws into effect, and laid before the committee a statement showing the number of colliers that could not be moored, agreeably to the bye-laws, at several of the tiers therein named, which was read as follows:

17. An Account of the Number of Colliers at the undermentioned Tiers, which cannot be moored according to the Bye-laws.

North Side:		
Kidney Stairs tier	12	Vessels laying at those tiers drive from their anchors, owing to the hardness of the ground, and at times do considerable damage to those laying in Ratcliff-cross tier.
Botany-bay tier	12	
Botany-bay upper tier	13	
North Side:		
Shadwell Dock tier	20	The space allowed to the London Dock Company by Act of Parliament for the new entrance.
Pelican tier	10	
North Side:		
New Crane tier	10	On the ground at half-ebb, which prevents craft from working.
King Edward's tier	8	
Wapping Dock	8	
South Side:		
King's Stairs tier	10	These are moored tiers, and principally used by vessels consigned to the granaries on the banks of the Thames, and in the Baltic iron trade, and in the Irish trade.
Prince's Stairs tier	10	
Church Stairs	10	
Total	123	

18. Resolved,

18. Resolved, that this committee are perfectly satisfied of the harbour-masters doing all they possibly can to carry the bye-laws into effect, consistent with the navigation in the Pool; but at the same time they do earnestly recommend to them to take every care to prevent more than the proper number of vessels being at the collier tier.

Friday, 7 *December* 1832.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

19. A letter from Sir John Hall, the secretary to the St. Katharine's Dock Company, relative to impediments to the free navigation of the river, and for an application to Parliament to amend the Act of the 10th Geo. 4, c. 124, and to obtain further powers to enable the harbour-masters to execute effectively the important duties of their office, with a memorandum relative to the bye-laws, was laid before the committee and read.

20. For the letter and memorandum, *see* the minutes of the 29th January 1833, (52, 53.)

21. Resolved, that it be referred to the harbour-masters to consider the said letter and memorandum, and to report their opinion thereon to the sub-committee.

22. Resolved, that it be referred to the sub-committee to take the same, together with the opinion of the harbour-master, into consideration, and to report their opinion thereon to this committee.

Wednesday, 9 *January* 1833.

THAMES NAVIGATION AND PORT OF LONDON SUB-COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

23. The town-clerk laid before the sub-committee a communication from the harbour-masters, with their opinions upon the letter and memorandum of the St. Katharine's Dock Company, relative to the harbour-service and the bye-laws for regulating the port of London, which was read. *See* minutes of 5th February 1833, (202, 203, 204, 205.)

24. Captain Fisher attending was heard thereon.

25. Ordered, that the same be reported to the grand committee for their consideration as to the best mode to be adopted upon the respective communications relative to the harbour-service of the port of London.

26. Ordered, that the harbour-masters do in the meantime consider the present Act of Parliament and the bye-laws, and report their opinions of the best mode to be adopted for improving the bye-laws, to remedy the inconveniences complained of by the St. Katharine's Dock Company, as far as practicable.

Friday, 11 *January* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

27. The proceedings of the sub-committee of the 9th instant, on considering the communication from the harbour-masters, with their opinions upon the letter and observations of the St. Katharine's Dock Company relative to the harbour-service and the bye-laws for regulating the port of London, were read, agreed to, and ordered accordingly.

28, 29. A letter from the Lords of the Committee of Privy Council for Trade, relative to the state of the navigation of the river, and also a letter from the town-clerk in reply thereto, were severally read. *See* minutes of 29th January 1833, (50, 51.)

30. A letter from the directors of the London Dock Company, relative to the present state of the navigation of the river, was read.

31. For this, *see* minutes of 29th January 1833, (56.)

32. A letter from Mr. Willins, respecting the mooring of vessels below London Bridge, was read.

33. For this, *see* minutes of 29th January 1833, (57.)

34. Captain Fisher laid before the committee a report, with a correspondence between the St. Katharine's Dock Company and the harbour-masters, relative to the present state of the Pool, which report was read as follows:

35. Gentlemen, Harbour-masters' Office, St. Katharine's, 31 Dec. 1832.

In the early part of the month there has been much blowing weather, but during the latter part it has been moderate, accompanied with calms and fog. During the time I have been in the harbour-service I never recollect so many colliers arriving in the river as there has been during this month; in consequence of which large numbers have been prevented

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from coming into the Pools to discharge. Some of them have been on demurrage for three weeks after their cargoes have been sold, before berths could be found for them in the Pool; and there has been considerable difficulty at times (from their number, laying from Bugsby's Hole and upwards,) for vessels to pass up; and several of the pilots have stated, that even as low down as Greenhithe the navigation at times has been greatly obstructed by them. I beg leave to lay before your committee the copy of a letter from Sir John Hall, secretary to the St. Katharine's Dock Company, complaining of the state of the Pool on Sunday the 9th instant, with the copies of other papers relative to the same; and from the frequent complaints from Sir John Hall, respecting the difficulties of vessels navigating through the Pools to and from their docks, I think it highly necessary to state for your information my opinion respecting the same. The causes of obstruction and impediments to the navigation in the port of London arise principally from the want of sufficient space for the accommodation and delivery of the vessels employed in the coal-trade in the Pools, in consequence of which large fleets are detained about Bugsby's Hole, Woolwich, Blackwall, Greenwich and Deptford, which at times, from their number, render it difficult for large vessels to navigate past those places; and it frequently occurs that vessels, after having sold their cargo of coals, are prevented for a fortnight or three weeks from coming up into the Collier Pool for delivery, which is an additional expense to their owners, as the crews are generally engaged by the run, and cannot quit their vessels until moored in the Pool. Another cause of obstruction is from the great and increasing number of steam-vessels navigating the upper part of the river at all times of tide, and from their breadth of beam (some of them upwards of 45 feet) they require a great space for a free transit through the Pools. They are also used in towing vessels to and from the London and St. Katharine's Docks, and, when going over the tide, cause much confusion and damage to vessels passing regularly through the Pools; and it frequently occurs that large vessels, from 600 to 800 tons, pass to and from the St. Katharine's Dock, which, if continued, must require so open a space for navigating them, that the proprietors of wharfs, and the property on the banks of the river between Limehouse and London Bridge, will suffer considerably for want of accommodation, by the reduction of the number of vessels in the tiers opposite their premises, as they have always considered the Pools more in the nature of a dock than otherwise; and that in establishing the above docks, the proprietors must have been fully aware of the difficulties they would have to encounter in bringing such large vessels into them. In fact, I see no other remedy than compelling the colliers to go into a dock, which will ensure a regular supply of coals to the metropolis, and I am confident will be the means of great saving to the shipowners, as the wear and tear of their vessels while navigating and laying in the river must be very considerable; besides, the public will derive great benefit by a depôt of coals being established, which they can have access to at all seasons of the year, as it frequently occurs that during a severe winter, although a large supply may be in the market, from the navigation being stopped by ice for weeks together, there is no possibility of delivery, which the small consumer feels the ill effects of. The East-country, Commercial Docks and Surrey Canal, which are doing little or nothing at present, might be advantageously converted to that purpose. The frequent accidents and loss of life that occur (which are principally in the Pools) are owing to the wherries that are now in use being too small for that purpose; in fact, some of them, when full of passengers, are not more than two or three inches from the gunnel to the water's edge, and when a steam-vessel passes them they must inevitably be swamped; indeed, long before steam-navigation came into use they were considered unsafe and dangerous. The skiffs generally used by the Greenwich watermen are the most safe and proper boats, according to the present system of navigation in the river Thames.

From the above statement, your committee must be fully aware of the difficulties and conflicting interests which the harbour-masters have to contend with.

To the Worshipful the Thames Navigation Committee.

John Fisher, Principal Harbour-master.

36. For the correspondence, *see* minutes of 29th January 1833 (39, 40, 41, 42, 43.)

37. Resolved, that it be referred to the sub-committee, maturely to consider all the communications between the respective parties, relative to the harbour-service of the port of London, and to report their opinion thereon to this committee.

Friday, 11 *January* 1833.

THAMES NAVIGATION AND PORT OF LONDON SUB-COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

38. The reference from the grand committee being read; resolved, that this sub-committee do proceed in the consideration thereof on Tuesday the 29th instant, and that the following parties be written to, requesting their attendance on that day:

The St. Katharine's Dock Company.
The London Dock Company.
Mr. Robert Smith, for the Watermen and Lightermen on both sides the river.
Mr. James Law Jones and Mr. Bessell, for the Steam-navigation Company.
Mr. Gillespy, for the Deputation from the Coal-merchants and Factors.
Mr. Barker, Mr. Drinkald, Mr. Charles Hay and Mr. Willins.

Tuesday, 29 *January* 1833.

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THAMES NAVIGATION AND PORT OF LONDON SUB-COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

[*Copy from Mr. Gurney's short-hand Notes.*]

Captain Fisher and Mr. Cousens, harbour-masters, were called in. The following letters were read:

39. Sir, St. Katharine's Dock-house, 10 Dec. 1832.

I am directed by the board of directors of the St. Katharine's Dock Company to bring under your especial notice the width of the channel through the Pool, yesterday the 9th instant, when,

Between Stone-stairs tier and low-water mark, the width was only 116 feet;
Between Ratcliff-cross tier and low-water mark, the width was only 130 feet;
Between Bell-wharf tier and low-water mark, the width was only 180 feet;

of which I am prepared to submit evidence on oath, if the fact should be disputed. The Cambrian, for Bombay, having left these docks at one o'clock, in tow of the Albion, I was induced to walk down to Globe-stairs to see her pass through the Pool, and at the time of her so passing, there was only one brig of about 200 tons dropping up; but the channel was so exceedingly narrow that the brig, which lay athwart the tide with her main-topsail aback, and her head to the southward, was prevented filling her main-topsail in time to check her, fearing, as I suppose, she would in that case make head-way and take the ground; under which circumstances the brig struck the Cambrian, did herself considerable damage, and the running rigging of the brig having got foul of the fore-yard of the Cambrian, although well topped up, the yard was broken and is rendered unserviceable. The bye-laws require that a clear channel of not less than 300 feet in width shall be kept, and as not the slightest pretext appeared to exist for the narrow state of the channel, and the very frequent complaints and representations of this company, of the disregard which has been paid to the bye-laws in that respect, renders it imperatively necessary for the board to call upon you, however reluctantly, to institute an immediate inquiry into the facts (should any of them be disputed), so that the subject may be regularly investigated, with a view to its being brought under the immediate and earnest consideration of the worshipful the port of London committee; it being impossible to forbear any longer seeking redress for a grievance which is daily producing consequences of the most serious and injurious nature to the commerce and navigation of the port.

I remain, Sir, your obedient servant,
J. Hall, Secretary.

I beg to add that, during one hour I was near and about the Pool, I never saw any harbour-master.

40. Sir, Harbour-masters' Office, St. Katharine's, 12 December 1832.

I herewith forward you the copy of a letter from Sir John Hall, secretary to the St. Katharine's Dock Company; and, as you were the harbour-master on duty on that day, it will require an explanation on your part, as Sir John Hall's letter will be laid before the worshipful Thames navigation and port of London committee at their next meeting. You will therefore see the necessity of the attendance of the harbour-master on duty (on the upper station) in the Lower Pool, in berthing and regulating the arriving colliers, as directed in my general memorandum of the 14th September last. On Thursday the 6th instant, I was in the Lower Pool, and berthed 18 sail of colliers, and remained on the river till after high water, without seeing you, whose turn of duty it was, on the upper station.

I am, Sir, your obedient humble servant,
To Mr. Cousens, Second Harbour-master. *John Fisher*, Principal Harbour-master.

41. Memorandum. Harbour-masters' Office, St. Katharine's, 14 Sept. 1832.

It being now the season of the year when large arrivals of colliers may be expected in the port of London, I have particularly to direct your attention and attendance in the Collier Pool, in regulating the tiers, and pointing out proper berths for the colliers before they are moored, which will prevent trouble and complaints, and be the means of preserving a clear and open navigation. I have likewise to call your attention to the fourth section of the bye-law, which directs the harbour-masters on duty to hoist their distinguishing flags in the boats on their respective stations; and to the eighth section, which requires the attendance of the harbour-masters on duty the whole of the flood tide, and the first two hours after high water.

To Messrs. Cousens, Rowland and Mayott, Harbour-masters, &c. *John Fisher*, Principal Harbour-master.

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42. Memorandum. Harbour-masters' Office, St. Katharine's, 19 Dec. 1832.
It having frequently occurred lately, that more colliers are permitted from the lower station into the Pools than are necessary for the weighers to work, I have to direct that no more be permitted up than are actually necessary, according to the list transmitted from the coal-market; as frequent complaints are made as to the difficulties in navigating through the Lower Pool, by the number of colliers permitted into it.

To Messrs. Cousens, Rowland and Mayott, Harbour-masters, &c. *John Fisher*, Principal Harbour-master.

43. Sir, Harbour-masters' Office, 13 Dec. 1832.
Your letter of yesterday came to hand late last evening, enclosing a copy of one you received on the 10th instant from Sir John Hall, and as you have stated that it is to be laid before the worshipful Thames navigation and port of London committee at their next meeting, I can very easily (although I feel sorry they should be troubled about it at all) give them the necessary explanation in my not being seen on the river last Sunday, and on the 6th instant, during the time that you and Sir John Hall were there.

I remain your obedient servant,
To Captain Fisher, R. N., &c. *William Cousens.*

44. *Chairman.* Mr. Cousens, the answer just read, which was given by you to Captain Fisher, has been received by this committee with some astonishment. After all that has passed you must know that it has been the opinion and the determination of this committee, and the committee that preceded it, namely, the port of London committee, that the principal harbour-master only should be held responsible to the committee, and the other harbour-masters be held responsible to him; so that your answer, that you would explain to this committee instead of to him, the principal and senior officer, is understood by this committee as a perseverance in that line of conduct which has on several occasions met with the disapprobation of the committee, and been extremely unpleasant to them. The committee have resolved that you shall still give the explanation to Captain Fisher, and that Captain Fisher shall report the same to this committee. The committee cannot now enter into an examination of the cause of your absence on the occasion referred to, when it appears, by the letter of Sir John Hall, that the river was in a state of confusion and obstruction, and no harbour-master present to enforce order. It is the opinion of this committee, to whom the matter is referred by the grand committee, that you should give this explanation to your senior officer.

Mr. *Cousens.* I am most sincerely disposed to a reconciliation with Captain Fisher, as he has given way to his written order in October 1829, in the matter which is of the most consequence, namely, the 300 feet space to be kept on the river, and to give to Captain Fisher the explanation which is required, as directed by the committee.

Chairman. The committee will not require your further attendance.

[Mr. Cousens withdrew.

45. The town-clerk reported that he had sent notice of the inquiries proposed to the secretaries of the dock companies, the wharfingers and lightermen, the coal-buyers and coal-factors, and the various parties interested in the navigation of the port of London.

46. The following deputations being in attendance were called in:

Sir John Hall	St. Katharine's Dock Company.
Captain Walton, Captain Maughan	London Dock Company.
Captain Smith	Grand Surrey Canal.
Mr. Barchard, Mr. Hawes, Mr. Cloves	Coal-buyers.
Mr. Bentley, Mr. George Smith, Mr. Scott	Coal-factors.
Mr. Sheriff Humphery, Mr. Silva, Mr. Mark Brown, Mr. George Scovell, Mr. Farncomb, Mr. William Brown, Mr. Burgess	Wharfingers, south side.
Mr. Robert Smith, Mr. Barber, Mr. Blenkarne	Wharfingers, London side.
Mr. Drinkald, Mr. Hay	Lighterman.
Mr. Banyon	Clerk Watermen's Company.
Mr. J. L. Jones, Captain Large, Captain Rule	Steam Navigation.
Captain Dowson, Captain Brocklebank, Mr. Willins.	

47. Sir

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47. Sir *John Hall.* Sir, I beg to state to the committee that the St. Katharine's Dock Company do not appear as complainants, but as suitors; they will be happy to give every assistance in their power to the gentlemen composing this committee, devoting as they do, gratuitously, a great portion of their time to the investigation of this subject; and I trust the committee will give credit to the dock company when I say that they are prepared to go into evidence for the purpose of giving the committee a clear insight into the matter. There is only one case to which I must make an exception with respect to the course which the company has thought it right to pursue, I mean with reference to a representation which I was compelled to make to the harbour-master, and which I understood applied to Mr. Cousens, he being on duty, as it appeared, at the time.

48. *Chairman.* The committee have seen Mr. Cousens upon that subject, and have reprimanded him. Gentlemen, it behoves me to express to you, on behalf of this committee, that we feel very much obliged by your attendance upon us to-day. The appearance of such respectable deputations, from the various important interests connected with the navigation of the river Thames, they feel to be highly complimentary to them, and likely to conduce to the general good. Upon this committee devolves the important duty of regulating the harbour-service of this port, the first in the world, the great highway to the commerce of the British empire, and of all nations with which the British empire is in amity. Representations have been made to this committee, from various quarters, that the port of London is not regulated in the best manner that it might be; and the committee have felt it their imperative duty to go into this inquiry, for the purpose of ascertaining whether any real or practical grievances exist, with a view to apply the best remedy they can discover. In order to accomplish that, the committee will confine itself in the first instance to the obtaining of all the information upon the subject it can procure, also the opinions of practical men, and all the parties interested, and will then go into the consideration of what is best to be done. The great object of the committee will be to do all that lies in its power for the public advantage, and to remove all obstructions which can by possibility be removed; it being an indisputable principle, that it is due to the trade of the whole world that such an important navigation should be kept free from all possible obstruction. In the pursuit of this desirable object the committee will endeavour to hold the balance perfectly even, so as not to favour any particular interest to the prejudice of others; it being their object impartially to consult the advantage of all. The clerk will read all the documents which the committee have before them, and then the committee will be happy to hear the gentlemen that represent the various interests, upon each particular suggestion of the St. Katharine's Dock Company, point by point; and when they shall have got to the end of that, they will request the gentlemen who attend, to say whether they have anything further to adduce.

The following letters were read:

49. Sir, Office of Committee of Privy Council for Trade, Whitehall, 8 Dec. 1832.

The attention of the Lords of the Committee of Privy Council for Trade having been directed to the Report made by a Select Committee of the House of Commons in October 1831, on Steam Navigation; their Lordships observe that it is stated towards the close of that Report (page 6, in the paragraph marked *fifthly*), "That it appears that the regulations and directions for keeping a proper extent of passage-way on the Thames, near London, for vessels and boats to pass up and down, are not duly enforced by the harbour-masters, from which mischief and inconvenience result;" and "the Committee are therefore of opinion that it is necessary that the authorities in the city who possess jurisdiction in these matters should forthwith have their attention called to them, with a view to their applying such early remedies on these two points as they may be found to require." I am therefore directed by the Lords of this Committee to request that you will inform me whether the port of London committee have taken any steps to carry the above recommendation of the Committee of the House of Commons into effect.

I am, Sir, your obedient servant,

To the Chairman of the Port of London Committee. *Thomas Lack.*

50. Sir, Guildhall, 12 Dec. 1832.

I have to acknowledge the receipt of your letter of the 8th instant, addressed to the chairman of the port of London committee, and having communicated with him thereon, I am instructed to state to you, for the information of the Lords of the Committee of Privy Council for Trade, that the port of London committee have not lost sight of the Report of the Select Committee of the House of Commons in October 1831, alluded to in your said letter, and every exertion in their power has been and is made to keep a proper extent of passage-way on the Thames, near London, for vessels and boats to pass up and down, and the same is preserved as far as is practicable with the nature of the port of London, and without serious injury to its trade. But from the reports of the harbour-masters from time to time, it is found to be almost impossible, with every endeavour on their part, at certain periods, from the great influx of vessels in particular trades, especially the coal trade, to keep a clear navigation to the extent of the 300 feet prescribed by the bye-laws for regulating the port of London. The whole subject is at this time under the consideration of a select committee appointed for that purpose, with a view to the applying a remedy, as far as they can, for any inconveniences that may arise.

I am, Sir, your obedient servant,

To Thomas Lack, Esq. *Henry Woodthorpe.*

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51. Sir, St. Katharine's Dock-house, 23 November 1832.

I am directed by the board of directors of the St. Katharine's Dock Company to request you will, at your earliest convenience, bring under the notice of the worshipful the port of London committee the necessity of applying to Parliament to amend the Act of the 10th Geo. 4, c. 124, and obtain further powers to enable the harbour-masters of the port of London to execute effectively the important duties of their office, and thus secure to the commerce and navigation of the metropolis the advantages contemplated by the Legislature, and the bye-laws framed in pursuance of such Act. Many of the impediments that daily exist to the free navigation of the river, and which are growing evils, appear to be beyond remedy, from the want of more summary powers; whilst many of the captains of vessels, but particularly of colliers (aware of the defect in the law), offend with impunity, and set the harbour-masters at defiance. The difficulties that exist in carrying the bye-laws into effect can, if required by the committee, be fully explained by the harbour-masters, who cannot fail to be deeply sensible of the impracticability that exists of giving to the shipping frequenting the port of London, above the Pool, the security and facility of navigation which the interests of its commerce and shipping imperatively demand. The board, under the circumstances stated, abstain from troubling the committee with any tedious details, as the difficulties and obstructions, which are of daily occurrence, are too notorious to require comment from them, or illustration. I am at the same time to add, that the board will be most happy to co-operate with the committee in carrying the object of this representation into effect, if their assistance should be deemed useful; and, from the extreme importance of the subject, it is hoped that no time will be lost in giving it immediate consideration. I beg further to invite the attention of the committee to the following extract from a Report of a Committee of the House of Commons, dated the 14th of October 1831, appointed to take into consideration the state of steam navigation, and also the evidence upon which the recommendation is founded: "That it appears that the regulations and directions for keeping a proper extent of passage-way on the Thames, near London, for vessels and boats to pass up and down, are not duly attended to or enforced by the harbour-masters, from which mischief and inconvenience result; your Committee are therefore of opinion that it is necessary that the authorities in the city who possess jurisdiction in these matters should forthwith have their attention called to them, with a view to their applying such early remedies on these two points as they may be found to require." And I am further to refer to the accompanying memorandum of some points which it is conceived are deserving the serious consideration of the committee; and

I have the honour to remain, Sir, your obedient servant,

To Henry Woodthorpe, Esq., Town-clerk. *J. Hall*, Secretary.

52. *Memorandum.*

	The bye-laws to undergo revision, with a view to embrace such amendments as they are susceptible of, in so far as the authority of the 13th section of the 10th Geo. 4, c. 124, extends.
These penalties, from a defect in the Act, are recoverable only from the owner of a ship or vessel.	The penalties which are imposed by the 9th section of the said Act, to be made recoverable from the master, pilot or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat.
No penalty attaches at present to any person so offending until after 12 hours' notice in writing, during which the most serious obstruction to navigation cannot be removed.	That penalties be imposed upon the masters, owners, pilots or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat, which shall in any manner obstruct or impede the navigation of the river, and especially the passage of the width of not less than 300 feet, directed to be kept free and unobstructed by the bye-laws; or which ship, vessel or steam-boat shall be made fast or moored at any tier at which the ships, vessels or steam-boats shall amount to or exceed the number limited by any bye-law; and also of all lighters, barges, craft or boats which shall be laid at or made fast to the outer side of the outermost ship or vessel lying in any of such tiers, so that a channel of not less than 300 feet, in manner directed by the bye-law, shall be kept a clear, free and unobstructed passage.
The bye-laws having limited the number of ships in certain tiers, no penalty attaches to the master or pilot of any ship which shall be made fast or moored at such tier beyond the number in question.	
This is highly necessary, as the communication between the tiers is frequently blocked up.	That a penalty be imposed on the owner, master, pilot or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat, which shall lie or moor at or in any of the in-shore passages or ferries, so as to obstruct the transit thereof.
This can only be done now after a twelve-hours' written notice, during which the most serious mischief may arise from the obstruction.	That powers be granted to the harbour-masters to order to be removed to such place as they may direct, and if necessary to cause to be removed, any ship, vessel, steam-boat, craft, lighter, barge or boat lying in the port of London between Blackwall and London Bridge, forthwith, upon verbal notice; the expense of removal to be paid by the master or owners, unless immediately complied with.

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No provision now exists for this necessary punishment, and maintenance of the authority of the harbour service.

That penalties be imposed upon all and every person who shall obstruct the harbour-masters in the execution of their duty, and use abusive and offensive language to them, and who shall refuse to obey their orders.

No power at present so to do, for want of which the powers of the harbour-masters are rendered ineffective.

That the harbour-masters shall have the power to call in aid the officers of the Thames police, for the purpose of enforcing, when necessary, the orders or directions they may give in the execution of their duty.

Highly necessary. If the moorings were fitted as suggested, it would not be possible for a greater number of ships to lie at those tiers than provided for, and thus prevent the infraction of the bye-laws, and the placing of ships would regulate itself, as the master of a vessel coming up would make fast to the first vacant bridle.

That moorings, with bridles, be laid down at such places and in such a manner between the Red House, Deptford, on the one side of the river, and the King's Arms, Limehouse, on the other, and the London Bridge, as shall be deemed necessary and fit for the accommodation of shipping in the port of London; the stations, number of ships, &c. to be permitted to moor or make fast thereat to be limited and defined, regard being had to the free and unobstructed passage of not less than 300 feet in width; and that penalties be imposed upon any master, owner, pilot or other person in charge of any ship, vessel, steam-boat, craft, lighter, barge or boat, who shall moor or make fast at any other place than at the mooring chains so laid down, without a special permission in writing from the senior harbour-master.

This should be made imperative; it is now left discretionary, and the consequence is, that this wholesome regulation has never been carried into effect.

That the aforesaid passage or channel of not less than 300 feet, between Limehouse and London Bridge, be buoyed off at convenient distances, and in such part of the river as shall be deepest, and where the current or stream runs the strongest.

The number limited by the bye-laws is 250, but from the opening of the New London Dock entrance, and a variety of other causes, there cannot now be accommodated conveniently, at one and the same time, more than from 125 to 135; and as the navigation of the river is not to be confined to colliers only, this regulation is indispensably requisite. Colliers should be encouraged to enter the Grand Surrey Canal Dock, Regent's Canal Dock, &c. to discharge.

That not more than 130 vessels, coal-laden, be permitted to lie or moor in the stream, or at any of the tiers above the entrance to the West India Docks, in Limehouse Reach, at one and the same time, for the purpose of discharging, or, after having discharged, to take in their ballast.

That when the term "ship" or "vessel" shall be used, the same shall be construed to extend to vessels and boats propelled by steam.

A provision to be inserted in the Bill, for regulating the speed of steam-boats between Cuckold's Point and London Bridge.

The Trinity corporation will not remove any sail from the bed of the river, unless it is fit for ballast and sale. The corporation of London declare they have nothing to do with the removal of the shoals and banks of mud; so that the King's highway of the river Thames is obstructed and impeded by shoals and banks of mud, constituting nuisances which no competent authority can be found to remove.

Also a provision to be inserted in the Bill, for removing the shoals and banks of mud, silt and other stuff, not being fit for the purposes of ballast, and to deepen the bed of the river, and preserve a proper depth of channel in the river Thames between Blackwall and London Bridge.

The penalties in question to be applicable only to wilful offences.

53. Mr. Cloves requested, on behalf of the gentlemen interested in the coal-trade, that they might be allowed a copy of the document just read.

Chairman. I apprehend the committee will have no objection to any of the gentlemen interested being furnished with copies.

The following letters were read:

54. Sir, London Dock-house, 8 December 1832.

The directors of the London Dock Company having been informed of the representation recently addressed to the worshipful London port committee, by the St. Katharine's Dock Company, bringing under the consideration of their worships the necessity of amending the bye-laws, and extending the power of the harbour-masters, thereby to enable them to execute the important duty of securing the uninterrupted navigation of the river Thames, I have been instructed by the directors to unite their respectful and earnest entreaty, that the subject may engage the early and serious attention of the committee.

The directors abstain from offering any suggestion or opinions as to the specific regulations which it may be necessary to adopt to remove the impediments by which the free navigation of the river is obstructed, being satisfied that if the harbour-masters be clothed with

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sufficient powers, the duty of keeping a clear passage for the shipping may be safely committed to their judgment and zeal; but the directors have desired me to add, that the company's dock-masters will wait upon the committee whenever required, for the purpose of rendering such assistance as their intimate acquaintance with the subject may enable them to afford.

I have the honour to be, Sir, your most obedient humble servant,

To Henry Woodthorpe, Esq. *S. Cock.*

55. My Lord, 7, Augusta-place, Clapham-road, 24 December 1832.

I beg most respectfully to submit to your lordship a plan I would propose to insure a clear and safe passage to and from the London and St. Katharine's Docks, at present so much obstructed and unsafe for large ships.

I would propose keeping the east side of Limehouse Reach clear, by mooring the ships usually lying in Limehouse Hole close over to the west shore, from the Commercial Dock to Cuckold's Point, laying the small vessels on the mud.

No ship or vessel, on any pretence whatever, to moor at Duke Shore.

The Pool from Globe-stairs on the Rotherhithe side to the platform, I propose forming 15 tiers for colliers, limiting the number to each tier.

On the north side, commonly called New-crane Mud, I would propose removing all the causeways, from King James's westward to Wapping Ness; a number of small vessels could then immediately moor in this space, and in a very short time the mud would again scour away.

The Upper Pool, from Wapping Ness to St. Katharine's Dock, I would also keep the passage on the north side clear by removing all vessels usually moored on the north side to the opposite shore.

I would also propose ordering all ships or vessels lying up or for sale, in the tiers westward of the platform, Rotherhithe, to the mud on the west shore of Limehouse Reach, and vessels with striking masts above bridge, where it is not necessary they should lie near a wharf to take in or discharge a cargo.

Having served my apprenticeship in the coal and Baltic trades, and afterwards commanded one of my own ships in those trades and in the Transport service, and having on several occasions been deputed to act as agent for transports, where active service was required, I feel no hesitation, if authorised by your lordship, in saying I can keep a clear and safe passage to and from the docks for large ships.

I will be most happy to wait upon your lordship at any time, to explain further if required. I beg to apologise for giving this trouble, and to subscribe myself,

Your Lordship's most obedient servant,

To the Right Hon. the Lord Mayor. *W. Willins.*

56. *Chairman.* The committee will be glad now to hear what Sir John Hall has to say, understanding that it will be necessary for him to leave shortly, in order to attend a court of directors of the St. Katharine's Company.

57. Sir *John Hall.* Sir, as the first paragraph of the memorandum which has been submitted to this committee by the Dock Company I represent, suggests that the bye-laws should undergo a revision, it may be necessary for me to state, shortly, what objects, in my opinion, may be effected by an alteration in the bye-laws, and what new penalties should be enacted for wilful offences.

But I will first call the attention of the committee to two or three objections I have to offer to the Act of Parliament, in order that the committee may judge whether they are of sufficient importance to warrant an application to Parliament for an amendment of the Act; the committee will then see whether it will be sufficient to confine themselves to an amendment of the bye-laws only, or whether an alteration of the Act is requisite.

The first section of the Act of the 10th of Geo. 4, c. 124, to which I will call the attention of the committee is the 9th; they will find that in the enacting part for the recovery of penalties, although the offence is chargeable upon the owner, master, pilot, servant, or other persons having the charge or command, as appears in the preamble of the clause, the part which authorises the recovery of the penalty is confined to the owner of the vessel; the result of which has been, practically, that when the ship is a foreign ship, the owner not residing in this country, and being out of the jurisdiction of our courts of law, there is no remedy, but he may offend with impunity; so, also, with respect to owners of ships living at an inconvenient distance: I submit that it would be necessary for the committee to apply to Parliament to amend this clause and to carry the enactment further, so that the penalty may be recoverable from the owner, master or other person having the charge or command of the ship.

As regards the 13th section of the Act, I have an observation to make, which I think is important. The power of making bye-laws under the 39th Geo. 3, c. 69, is repealed by the 10th Geo. 4, c. 124, and the power of making bye-laws is re-enacted by the 13th section of this Act. All the previous sections which impose penalties enumerate steam-boats; they are specifically described in sections 4, 5, 6, 7 and 9; they were not recognized in the Act of 39 Geo. 3, because, at that period, steam-boats were not in the habit of entering the port of London; but the sections alluded to, of the 10th Geo. 4, have referred to steam-boats by name, and declare that the penalties therein provided should be enforced against them; the 13th section gives a power of making bye-laws only in respect of ships and other vessels; and, in consequence of the omission of description, by name, of steam-boats,

boats, no power exists to make bye-laws creating penalties for any offences in respect of such boats, which are liable to penalties only in the cases set forth in the section before named.

There is one other point to which I request the attention of the committee, having relation to the second and fourth sections of the Act last named. The second section of the Act repeals so much of the 39th Geo. 3, as related to the appointment of harbour-masters, and the third section re-enacts the same power as previously existed, authorizing the lord mayor to appoint future harbour-masters in the event of a vacancy; but, there, doubts are entertained; for, considering that the restrictions and limitations imposed by the Act of 39 Geo. 3, are the condition of the appointment of harbour-masters, and such Act having declared that the harbour-masters shall be appointed under the authority of the Act of the 39th Geo. 3, and the power of appointment under that Act being repealed, and the appointment transferred to the Act of the 10th Geo. 4, which Act has not embodied the conditions and limitations under which they were originally to be appointed, great doubt is entertained whether those conditions are not dormant, and whether any legal power exists to revive them. This is important, because by the Act of 39th Geo. 3, a regulation was made, that no harbour-master should be appointed unless he should have been previously examined and approved of by the elder brethren of the Trinity-house; but the lord mayor may, as I conceive, now appoint a harbour-master without application to them, and without a certificate of qualification.

There is one other point to which I beg to call the attention of the committee. By the Act of Parliament referred to, a power is given to the lord mayor to inquire, and upon fit cause to suspend and dismiss a harbour-master: this is distinctly in the power of the lord mayor, without the interference of any other person or body whatever. Now it occurs to me that it would be extremely desirable, in the event of the committee going to Parliament, to obtain a clause which shall transfer into the hands of the committee the power of suspension and dismissal. It must be obvious that the lord mayor is the party who appoints, and, with every possible respect for that high municipal officer, I venture to suggest that the committee, from their attention being constantly devoted to these subjects, would be a more fit body to determine any matter of complaint, rather than that they should report to the lord mayor; *non constat* but he may be the person who has made the very appointment. I beg leave to suggest that it would be beneficial to the public interest, provided Parliament would agree to insert a clause devolving the power of suspension and dismissal upon the committee.

So much, Sir, for the Act of Parliament. Now with respect to other matters. I will read to the committee the memorandum submitted by the Dock Company, and will, as I proceed, make the observations that occur to me in support of the amendments. I take the liberty of proposing, first, "That the penalties imposed by the 9th section of the Act of 10th Geo. 4, cap. 24, shall be made recoverable from the master, pilot or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat." I do not feel it to be necessary to enforce this by further observations; the necessity of the amendment being so obvious.

The next is, "That penalties be imposed upon the masters, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat, which shall in any manner obstruct or impede the navigation of the river, and especially the passage of the width of not less than 300 feet, directed to be kept free and unobstructed by the bye-laws; or which ship, vessel or steam-boat shall be made fast or moored at any tier at which the ships, vessels or steam-boats shall amount to or exceed the number limited by any bye-law; and also of all lighters, barges, craft or boats which shall be laid at or made fast to the outer side of the outermost ship or vessel lying in any of such tiers, so that a channel of not less than 300 feet, in manner directed by the bye-law, shall be kept a clear, free and unobstructed passage." Now, it is to be observed that, by the 23d bye-law, page 30, no penalty can be recovered against any offender of that regulation under this Act, who shall not have had 12 hours' notice in writing. By the last Act of Parliament the clause is repealed which required the notice of 12 hours to be given prior to the party being compelled to remove his vessel, whereas, by the bye-law in question, the power of removal is neutralized, as it is thereby declared that no penalty shall be recoverable from any person who shall not have had 12 hours' notice. The consequence is, that captains set the harbour-masters at defiance, the latter conceiving that they have power to give a captain notice, although the penalties cannot be recovered until the 12 hours shall have expired; the result is, that the hands of the harbour-masters are completely tied, and they have no power to remove the existing obstruction at the time.

There is another section of the Act 39th Geo. 3, which, if the committee think it expedient to go to Parliament, it will be desirable to consider. There is a provision for a 12 hours' notice which has been omitted to be repealed; I recommend, therefore, that the 94th section of the 39th Geo. 3, which requires a 12 hours' notice should be repealed, in conformity with the section inserted in the last Act of Parliament, repealing so much of the former Act as interferes with the power of the harbour-master to remove obstructions.

The next paragraph of the suggestions which the Dock Company have taken the liberty of making is, "That a penalty be imposed on the owner, master, pilot, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat which shall lay or moor at or in any of the inshore passages or ferries, so as to obstruct the transit thereof." I apprehend that no difference of opinion can exist upon this. There is no bye-law at present preventing such obstructions, although they may be removed upon a 12 hours' notice in writing. Ships are in the habit of hauling out of the tiers, and laying between them, and

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in the middle of the river or stream, by which obstructions take place; and, as regards the ferries, boats cannot even pass with safety; it is desirable that nothing which can tend to an infraction of the regulations of the port should be permitted. There is one more observation as connected with this branch of the inquiry worthy of attention: the committee will find that the bye-laws cannot be enforced against those persons by whom the principal obstructions are now created, namely, captains who make fast their ships for a temporary purpose. If a man is spoken to, he says, "Oh! I am going away next tide." It is highly necessary to remove obstructions of that sort; I therefore strongly recommend that power be extended to remove ships and craft making fast, and creating obstructions, and the penalties applying to ships moored. This being a penal Act of Parliament, the magistrates of course would construe it strictly, and require that the obstruction shall be brought within the precise words of the Act.

Mr. *Barchard.* May I be allowed to ask one question, whether the chairman considers that it will save time if we express, as Sir John Hall proceeds, what are the points on which we agree with him, which we probably shall do on some points; or whether we shall reserve ourselves till we have been favoured with a copy of his memorandum, and leave for future consideration the various topics it presents?

Chairman. It had struck me that there were many remarks which might be made, and many questions which it might be desirable to put to Sir John Hall, but as his presence will shortly be required in another place, it will probably be more convenient that we should not break in upon him, but that we should reserve any questions until we shall have considered the effect of the statement with which he is now favouring the committee, and to which the parties may have access.

58. Sir *John Hall.* I beg the gentlemen assembled will be so good as to understand that it is the anxious desire of the Dock Company that all parties should have full knowledge, not only of the representations made by them, but of any explanations I may give. Their object is to give assistance and information, and nothing will afford them greater satisfaction than the fullest communication, that the interest of every one may be regarded, as the object of the Dock Company must be equally important to all engaged in the trade of the port.

The suggestion to which I would next call the attention of the committee is, "That powers be granted to the harbour-masters to order to be removed to such place as they may direct, and, if necessary, to cause to be removed forthwith any ship, vessel, steam-boat, craft, lighter, barge or boat lying in the port of London, between Blackwall and London Bridge, upon verbal notice only; the expense of the removal to be paid by and recoverable from the master or owner unless immediately complied with." A verbal notice may, in many instances, become imperative from circumstances; and I recommend that a discretion should be reposed with the harbour-masters, who are the best judges when to exercise it, and that they should not be tied down to a written notice, to which, as the committee no doubt are aware, technical objections have been made. At one time the harbour-masters, for dispatch, adopted the plan of printed forms of notices, when they were thrown upon their backs, it being held that a written notice must be given to comply with the words of the Act. I conceive every facility should be given to carry this object into effect, instead of obstacles being presented.

The next suggestion I recommend is, "That penalties be imposed upon all and every person who shall obstruct the harbour-masters in the execution of their duty, or use abusive and offensive language to them, and who shall refuse to obey their orders." The propriety of this is so obvious, that it is not necessary to make a single observation upon it.

The next amendment I recommend is, "That the harbour-masters shall have the power to call in aid the officers of the Thames Police, for the purpose of enforcing the orders or directions they may give in the execution of their duty." This is a matter of regulation which, as it appears to me, is not only highly expedient but indispensably necessary.

The next suggestion is, "That moorings with bridles be laid down at such places and in such a manner, between the Red House, Deptford, on the one side of the river, and the King's Arms, Limehouse, on the other, and up to London Bridge, as shall be deemed necessary and fit for the accommodation of shipping in the port of London; the stations, number of ships, &c. to be permitted to moor or make fast thereat to be limited and defined, regard being had to the free and unobstructed passage of not less than 300 feet in width, as provided by the bye-laws; and that penalties be imposed upon every master, owner, pilot or other person in charge of any ship, vessel, steam-boat, craft, lighter, barge or boat, who shall moor or make fast at any other place than at the mooring-chains so laid down, or make fast to the outermost vessel without a special permission in writing from the senior harbour-master." By the 154th section of the 39th Geo. 3, the amount of the port duty is specifically applicable, not only to the maintenance of the mooring-chains, but also to the providing new mooring-chains; therefore the improvement of these mooring-chains would be a legitimate application of the monies so to be received; and I wish to impress upon the committee how important it is that moorings be laid down in the river Thames, and that ships shall not be permitted to bring up and moor with their anchors. One of the chief objections to anchoring in the river Thames is, that by change of wind it is impossible to keep them stationary or steady in their places, in consequence of which the passage left for the navigation of ships passing up and down the river is obstructed. Now, if mooring-chains were laid down, and bridles placed upon them, fixing the number of bridles according to the number of ships which it may be found convenient to place in each tier, the ships would know where to go to, and not be subject to the influence of the wind; and, by the tier

so moored keeping in their places, the free passage of the river would be kept unobstructed. This, of itself, would considerably diminish the labour of the harbour-service.

The next suggestion made is, "That a passage or channel of not less than 300 feet, between Limehouse and London Bridge, be buoyed off at convenient points or distances, and at the angles of such parts of the river as shall be deepest, and where the current or stream runs the strongest." I am aware that there may be a difference of opinion as to the expediency of laying down buoys in any navigable channel, but I beg the committee will understand that the St. Katharine's Dock Company do not suggest the laying down a number of buoys for the purpose of marking the channel, but only in such situations as may mark the outside boundary of particular and prominent tiers, and to show that each ship is within her mark. Single buoys, laid down at three or four points, will be all that can be required; and I beg to call the special attention of the committee to this as an experiment, because I understand some conversation has indirectly taken place with some of the elder brethren of the Trinity-house upon this subject; whereas, the Trinity corporation have nothing to do with this; for, if the committee think, upon hearing evidence, that the experiment is worth trying, and that it is a feasible object, the bye-laws give them a power to provide for it. Should it not be found successful in practice, it may be easily abandoned. The expense would be small, I suppose not much beyond 150*l.* to lay down half a dozen buoys, which should be very light, so that a ship or craft would pass over them. Such buoys could not obstruct navigation.

The next question is the number of ships which should be permitted to lie in the Pool. It cannot be denied that since the opening of the London Dock new entrance, the means of accommodation in the Pool have been considerably abridged. The extent of accommodation, as it appears to me practically, and which I submit respectfully to the committee, is such, that not more than 135 ships can be accommodated in the Lower Pool, consistently with the means of navigation required for trade generally. Whether I am right or wrong in that opinion the committee will hereafter determine. The bye-laws, in my opinion, require revision, also in respect to the number of ships in each tier. By the evidence given before the Committee of the House of Lords and the House of Commons in the year 1796, at the period when the Legislature was compelled to interfere, with a view to the removal of impediments to the navigation, the evidence adduced consisting of the elder brethren of the Trinity House, lightermen, and nautical and practical persons, it was established, *unâ voce*, that 12 ships should be the maximum. Twelve ships, however, were considered by the committee of the port of London, at the period of passing the Act for regulating and improving the port, to be too small a number; and in the bye-laws under the Act of the 39th of the King, the number is limited to 15. I beg to urge upon the committee their referring to the state of things then existing, and their considering whether the present increased state of trade will now justify an exsension of the number in each tier to 20 by the bye-laws, which in practice is frequently 26. At that period, say 1812, in a very different state of trade, the maximum was so much below that number that I am prepared to impress upon the consideration of this committee the expediency of going back to the wholesome regulations established under the provisions of the 39th Geo. 3, by which the number of ships to lie in tiers was limited to 15, and if that limitation were now enforced, as it ought to be, I am satisfied that a great part of the evil would be removed. It is not a floating obstruction that those interested in a free navigation complain of. If ships are dropping up or running down they may get out of the way of each other, but it is those ships which are a fixture that create the impediment. If gentlemen consider the 300 feet passage to mean that the navigation shall be perfectly free and clear, it is absurd; what is meant is, that not less than 300 feet shall be left for ships or craft to pass up and down; that there shall not be any ships lying moored, or brought up, or made fast, to obstruct that particular width of passage: that is the reasonable construction I would press upon the committee, at the same time observing that the 300 feet is the minimum.

The next provision which I take the liberty of proposing is for regulating the speed of steam-boats between Cuckold's Point and London Bridge. This subject has been fully gone into by a Committee of the House of Commons, and evidence taken upon it, under which circumstances I will not trouble the committee further than to say, that if in the investigation any further evidence is deemed necessary, I shall be happy to give it.

With respect to the next paragraph, before I observe upon it I beg to press upon the attention of the committee the importance of the state of the navigation of the port of London. The committee will no doubt be surprised to hear what its trade was in the year 1831 and the year 1832, and I therefore invite the attention of the committee to the means of accommodation which the moorings in the river afford. In the year 1831 there were 5,610 ships in the foreign trade, tonnage 1,941,642, and 19,470 coasters; 2,490,561 tons of shipping entered the port of London. In the year 1832 the ships in the foreign trade that entered the port diminished to 4,018, and the coasters, as I am informed, to 12,268, tonnage 1,089,205 tons; showing a falling off in the year 1832 of 7,202 coasters, and 1,592 vessels in the foreign trade, equal, if I am right, to 1,401,256 tons, making a total decrease in the year 1832, as compared with the year 1831, of 8,794 ships, and an aggregate tonnage of 1,666,478 tons, being 33 per cent., or about one-third less than the average navigation of the port of London for five or six years preceding 1831. As to the foreign branch of navigation I know I am right: of the coasting I am doubtful; but I put this by way of begging the question. The coal trade has progressively increased (last year 528 ships more), and we are told that the port of London last year did not afford means of accommodating the shipping resorting to delivery in the stream, so as to give a clear passage at the least of 300 feet, a very moderate width of passage for such a purpose.

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Undoubtedly, if such a fact can be proved, additional means of accommodation must be found, particularly for the coal-trade; but I submit to the committee, that even at present a channel of 300 feet may be found, provided the harbour-service is duly and effectively conducted, and armed with additional powers, although the tiers in the river may not be found at times sufficient for the accommodation of the ships frequenting it.

Upon the subject of the harbour service I beg to make one or two observations, and I do it with less reluctance as I see one of the officers of that establishment present. I am convinced that, whether in a public or a private establishment, it is impossible to conduct it properly without due discipline is preserved. If the superior officer of a department is not to have his instructions duly obeyed; if the subordinate officer, under any circumstances, should be permitted to set his superior at defiance, or treat him contumeliously, much less the committee of superintendence, I will appeal to any sensible man whether it is possible to execute that service properly under such circumstances. My reason for observing this is, that an impression exists abroad,—you, gentlemen, will know whether there is any foundation for it,—that a want of discipline and co-operation exists in the subordinate departments of the harbour-service which requires a radical cure, and renders a remedy immediately necessary. If the law be such as to permit any junior harbour-master to disobey the instructions of the senior harbour-master, and not only to do that, but to treat with contumely the orders of the authority placed over him, it is impossible for any of those interested in the navigation of the port of London to expect any remedy to be effectual. I will say no more than what I trust is sufficient to call the serious attention of the committee to this particular point, so important as it is, after the various representations which have been made on the subject, particularly of the state of the Pool. I am not reciting the opinion of others merely, but am stating my own opinion as practically established. Last Sunday only, after church, I went down into the Pool, and although I never saw the river more empty of shipping, there were 23 ships lying in Bell-dock tier, creating a most serious obstruction, when there were not 200 feet passage clear. There were only six tiers in the Lower Pool, amounting to 79 ships, and still, in defiance of the regulations, there were 23 ships in one tier. If several ships had been coming up at that moment they would have found great inconvenience in passing. Ships of ordinary size dropping up require 120 or 130 feet; larger, from 150 to 200 feet. And, with reference to the representations of the Dock Company, I beg to call the attention of the committee to one I was instructed to make in the month of December last; I do not know whether it has reached this committee; if it has I am quite content to leave it in your hands, and, if it should become necessary, I am prepared to prove the facts. On the day in question, the width of the Pool, upon my personal examination, at Stone Stairs, was only 130 feet, and at Bell-wharf tier, 180. I do not think there were 20 ships passed up and down that day, but the river was so crowded in that part that there was not room for a ship to drop up, without either going ashore to the southward, or running stern foremost into some other of the tiers.

The next point to which I beg to call the attention of the committee is the last in the memorandum, and relates to the state of the shoals in the river Thames. I have been told, but I am not prepared to say that I have heard it from the Trinity corporation, although I have heard it from a practical officer of this committee, that the Trinity corporation allege that they are not bound to remove any shoals unless the soil can be sold as ballast. The natural inquiry then is, if there is a large shoal impeding the navigation, who is to remove it? Apply to the corporation of London; their answer is, that they have nothing to do with it: apply to the Trinity corporation, and they refuse to do it; so that with such conflicting opinions, the shoals and impediments remain. I should be glad to know whether the bye-laws, which require that those shoals shall be reported from time to time, have been complied with; I take it for granted that they have, for I consider Captain Fisher would not allow so important a part of the duty to be neglected; but it was not without some difficulty that I got the consent of the Trinity corporation to remove into Limehouse Reach, recently, their large steam-dredging engine, for the removal of a shoal which creates a great impediment and dangerous obstruction. They placed the engine upon it, but I understand it has been just removed, in consequence of their finding the stuff too hard, although such stuff must be fit for ballast. There is another very dangerous shoal in the shape of a sugar-loaf, between the Folly House and the point of the Isle of Dogs, Greenwich end, a shoal on which the Trinity corporation worked some time ago, but with very little effect: there is sometimes less than six or seven feet water upon it, and if a ship should ground upon it she must tumble over. The mud at Cuckold's Point also requires to be cleared. I would appeal to this committee whether these shoals can be permitted to continue; but unless there is some remedy they must so remain, for the Trinity corporation will not remove them, and the corporation of London and the conservator of the river Thames say they are not called upon to remove them: the question then is, whether this committee, being formed for supervising the improvement of the port of London, including, of course, the removal of obstructions and impediments to navigation, are not empowered to expend a portion of the monies levied as port dues for that object. I am not prepared to say they are, but, next to removing what I call floating obstructions, the removing impediments existing in the bed of the river Thames is equally important, and calls for serious attention.

I have now gone through those points which I took leave to submit in the abstract, and shall be happy to give any further information in my power; but, as far as respects the mooring of ships in the tiers, I have another observation to make. The 23d bye-law regulates the number of ships to be allowed to lie in each of the tiers. If the committee were to revert to the wholesome bye-laws of 1812, under the Act of 39th Geo. 3, by diminishing

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the number to 15 ships at the outside, there will be a convenient passage; but it is the excess and abuse from 15 to 20 or 25 and 26, that creates the great obstruction. The greatest of such obstructions is allowed in the very narrowest part of the river: every ship, in entering and going down, has to pass through this narrow tunnel, whereas, in every other part a width is kept free without difficulty. It is by the permission given by the harbour-masters, contrary to the bye-laws, for colliers to lie in a greater number in those tiers that the great obstruction is created; and I would urge upon the serious attention of the committee that it would be desireable to revert to the bye-laws alluded to, and limit the maximum number to 15. Every practical man knows that the set of the current near Duke's Shore is to the north shore on the flood-tide, and on the same shore on the ebb-tide: if a vessel pass up under such circumstances, and it happens to blow hard from the westward and south, it is ten to one if she does not get athwart hawse. The tiers at Mill Stairs and Hanover Hole are very inconvenient. I was down the river last Sunday, and I saw the mode in which the vessels lay. There was an opening between the outermost portion of a tier and some inner ships of between 200 and 300 feet from the innermost ship and the outermost; it appeared as if four or five vessels had gone out, and the other vessels had not been required to close in; the outermost vessel was lying in the centre of the river. Unless these things are attended to and remedied, the trade of the port of London will be interfered with and driven away. The interests of the city are so much involved in this question that this committee cannot but feel a deep interest in it, for it is not to be expected that the colliers are to prevent other ships from entering the river. If there are any observations I have made which call for explanation, I shall be most happy to give it.

61. *Chairman.* The inconvenience of not being able to inflict penalties on any persons but the owners applies principally, if not entirely, to foreign vessels; does it not?—Sir *John Hall.* It applies to owners of every description residing at a great distance. Every one must see the inconvenience of enforcing a penal law upon persons living in Scotland or in Ireland. The object of those regulations under the Act of Parliament was to give a summary jurisdiction; but to continue its application to owners only, will narrow its operation.

62. *Chairman.* Are you aware that the only difficulty which has been experienced, is in the case of the Batavier?—Sir *John Hall.* I am not aware of any other case in point, but I am of opinion that other cases, which ought to have been visited with penalties, have not been prosecuted, and parties knowing the state of the law have taken advantage of it.

63. *Chairman.* Has it occurred to you that the very summary powers proposed in your suggestions are of such a nature that it is probable Parliament would not give them?—Sir *John Hall.* I am not aware of any of that character, but I shall be glad to have any of those pointed out; I am not aware of any that I have suggested but what are strictly in accordance with the intention of the Act: the offences, of course, must be wilful.

64. *Chairman.* With regard to the inconvenience you point out, which you consider as very great, that of 12 hours' notice being necessary before the parties can be subject to any penalties, and that notice being in writing, that I believe applies to vessels already moored; for such may be the state of the tide and other circumstances, that it would be impossible for the vessel to be removed till another tide came on, which appears to be the reason of 12 hours' notice being allowed?—Sir *John Hall.* My impression is, that it should be left to the discretion of the harbour-masters, who, being upon the spot, are the best judges whether a written notice should be given or not. I have no right to suppose that the harbour-masters would vexatiously use that power, but it is indispensable that they should possess it.

65. *Chairman.* Would not the moorings with bridles, which you have suggested, instead of the ships mooring with their anchors, occasion an immense expense?—Sir *John Hall.* It would be attended with some expense, but not of such an extent as to alarm the committee. With a view to bring their consideration to it, the committee will probably call for some estimate of the expense of putting down one of those mooring-chains with bridles as an experiment; and I do not think a more legitimate application of the money levied on the trade of the port of London can be pointed out. It is for one of the declared objects for which the port-duty is raised. Such moorings being put down would save a considerable expense to the shipowner; instead of having the chains taken up, as they are now in some parts by chain-lighters, to moor, they would have only to make fast to the bridles, and it would save them half-a-guinea, which they now frequently have to pay, from the mode in which they moor, for making fast and unmooring.

66. *Chairman.* That would be a fair application of the tonnage duties, and would be perfectly equitable, being for the accommodation of the parties paying; but you are aware that the tonnage duties would not at present meet that expense. Can you inform the committee, supposing the tonnage duties are not adequate to meet the extraordinary expense, how the committee could obtain funds for making and sustaining such moorings, in case they should be found desirable?—Sir *John Hall.* My answer to that is, that by the arrangement with the Government the port-duty is to cease from the moment the principal shall be discharged, and it was ascertained upon investigation that it would cease in about two years; but I am prepared to say that the principal cannot be paid off in less than three years, for the committee have omitted to consider the annual current expense of the harbour-service, amounting to 7,500*l.* a year; and that, added to the amount in question, will make a difference of about one year's collection, so that that will carry it into the third year. But then a fund must be created to provide for the future annual expense of the harbour-service, which would take not less, in my judgment, including the intermediate expenditure, than five years more. I think, therefore, it is hopeless to expect that the duty will termi-

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nate at an early period; such an expectation cannot be realized. I have gone into the account, and am prepared to say that the shipping interest cannot, in less than eight years, look to the total abolition of the duty. Whether the Government may be induced to reduce it one-half at once is another question, in which case it would be 12 or 14 years before the navigation of the port could be relieved from the burden. I do not think it possible that any expense incurred in laying down the bridles I have suggested, would amount to one half-year's collection, assuming that they were found to answer.

67. *Chairman.* The shipping of England being now subjected to a competition with all the world, there is a consequent great reduction of freights; a ship cannot now be worked to any profit whatever, but by the severest economy; there is, therefore, a great call for a reduction of the tonnage duties, consequently, any expense tending to prolong the burthen of those duties would be objected to by the shipping interest.—Sir *John Hall.* Provided the expense were to be so large as to extend the collection unreasonably; but I am satisfied the expense would not require a six months' collection to accomplish this very great improvement; and I am persuaded that while every ship-owner and seaman would declare that they would save anchors and cables, and be enabled to moor their ships properly, they would willingly waive this trifling sacrifice to secure so important an object.

68. Mr. *Cloves.* May I ask whether we are to understand Sir John Hall to apply this to colliers?—Sir *John Hall.* To all vessels mooring in the river.

69. Mr. *Cloves.* It would be impossible to get the ships in and out.—Sir *John Hall.* No; and there will be, according to my plan, room head and stern for barges, and clear working sides.

70. *Chairman.* Sir John Hall is now open to any question which any gentleman may have to ask him, and after that we will go on *seriatim* to a consideration of all the suggestions made.

71. Mr. *R. Smith.* Sir John Hall has stated that vessels may be removed from the situation in which, by chains, they place themselves. I would ask, when a vessel has stopped according to the circumstances of the tide in any given tier, and the captain has gone ashore, whether, that vessel being forced, he supposes that the mate would allow the vessel to be moved until he had an opportunity of seeing his captain?

72. Sir *John Hall.* The question which the honourable gentleman has put seems to embrace two propositions. The first is, whether a ship once moored can be immediately removed. In such a case my intention of proposing to leave the question to the discretion of the harbour-master amounts to this; if the harbour-master felt that the ship was not in a situation to be immediately removed, he would not require the immediate removal; but if he found she lay in a situation where she could be immediately removed, he would, in the discharge of his duty, require her to be removed forthwith. The second proposition is, whether a subordinate officer would feel himself justified in removing a vessel when the captain was on shore. I answer, that the river regulations require certain things to be done, and it is no answer to say that the captain is on shore; the vessel must be removed, under the direction of competent authority, if it can be done with safety, at the time.

73. Mr. *R. Smith.* Sir John Hall has stated that, in case of a revision of the Act of Parliament, this 12 hours' notice should be done away altogether; my question was put to him upon the supposition of a new Act of Parliament containing the extraordinary powers which he suggests; I put the questions, believing it to be morally impossible to carry them into effect in any way whatever. I have now another question to ask Sir John Hall; it relates to his proposal for bridling-in the vessels. I am very desirous of knowing from him, as he is a practical man, if a tier of vessels is bridled-in, how craft can get between them to unload their cargoes?

74. Sir *John Hall.* Mr. Smith does not appear to have understood my answer; I say that the mode in which the vessels are to be moored by bridles is, by leaving clear sides to each vessel.

75. Mr. *R. Smith.* I beg to put in this plan, which is drawn on the idea of bridling vessels in a tier [*producing the same.*]

76. Sir *John Hall.* The plan of Mr. Smith, now produced, would be inconvenient; no craft could get alongside. My plan provides free access; Mr. Smith's mode of bridling is very improper, the ships being all jammed together.

77. Mr. *R. Smith.* As the vessels lie now, in tiers, it is, in my opinion, morally impossible that they should be bridled, so as not to produce great inconvenience to the port of London.

78. Sir *John Hall.* One of the gentlemen has requested me to state whether, in the bye-laws, there are any penalties upon the harbour-masters for not duly performing their duty. By the 22d section, pages 25 and 26, a penalty of 5*l.* is imposed on the harbour-masters for not performing their duty; but, from a deep conviction that it is impossible, without further powers, and better administration of the harbour-service, for them to execute their duties properly, I have considered that, under such circumstances, it would not be just to enforce any of those penalties against the harbour-masters, whilst they are not in a condition to perform their duties; but I now give them fair warning that, as far as I am concerned, whenever the laws are amended, I will see that the penalties are enforced. [*A plan was produced.*]

79. Sir *John Hall.* That which is now produced is my plan for mooring with bridles, which I recommend for consideration, and by which it will appear that there are clear sides. It is the copy of a plan submitted by me to the port committee three years ago, and last year to the House of Commons. [*The plan was explained by Sir John Hall to the gentlemen present.*]

80. Mr.

80. Mr. *Cloves.* Is not a greater space taken up across the river on this plan than previous?—Sir *John Hall.* No.

81. Captain *Smith.* Would not the chains prevent the craft coming in?—Sir *John Hall.* Not by any means; there is width enough between.

82. *Chairman.* Would the ships have more play by this mode of mooring than at their anchors?—Sir *John Hall.* Infinitely less: the wind setting upon them whilst anchored in tiers, as done at present, they cannot now keep in their place; but, according to my plan, they will be able to do so when the number of bridles is fixed and regulated by a bye-law; no more ships can then lie in that particular tier then allowed. So many ships as there are bridles for will go there; if the captain of a ship, on coming up, saw the bridles at full, he would go to another tier, and save the harbour-masters half their labour.

83. Mr. *Hunter.* Sir John Hall has said, if you go to Parliament he anticipates that you will get a clause for a summary process to remove every ship, vessel, craft, and every impediment in the water-way. We all know that impediments arise from the number of craft going backwards and forwards for the cargo in those vessels lying in the river; has any harbour-master power to come alongside and take them away? if not, I want to know whether it is the intention to give a summary process?—Sir *John Hall.* To preserve a clear passage for the ferry-boats only. If a person wishes to go across, it is a great grievance that he should be obliged to go down below, or up above, three or four tiers, before he can find a place to land. I think there should be room left for the watermen to pass with their wherries between the tiers.

84. *Chairman.* The right of passage across the river should be preserved, where legitimate ferries are established, as well as up and down the river.

85. Mr. *Cloves.* According to this plan of Sir John Hall's, if he gain some little advantage one way, he loses a material advantage the other, inasmuch as the tier will be so much longer.—Sir *John Hall.* Not at all; the chains and bridles are laid down so as to afford an angle of 45 degrees, the usual strain upon the bridles; there must be a sufficient scope of cable out when a ship lies at anchor.

86. *Chairman.* Supposing, when the whole inquiry has concluded, the corporation should think it advisable to attempt that mode of mooring the colliers, would it not be advisable that they should try one tier first?—Sir *John Hall.* Certainly; I am not wedded to the plan; all I recommend is, that it may be tried as an experiment. I propose that the city should make the experiment with half-a-dozen bridles only; a measure of this kind is not to be hastily adopted. This matter has been under the consideration of the port committee upwards of two years, when I first suggested it to them. I am decidedly of opinion that moorings of a suitable description should be provided.

87. Should the committee ultimately adopt this suggestion of mooring by bridles, they will undoubtedly try the experiment with only one tier at first, and that may obviate the necessity of going more into detail at present.

[Sir John Hall withdrew.

88. *Chairman.* There are some gentlemen representing the London and other docks present. As we are principally moved to this inquiry by the dock directors, perhaps it will be desirable to give the gentlemen who represent the other docks an opportunity of going generally into these matters, as Sir John Hall has done. Have you, gentlemen, who represent the other docks, anything to add to that which you have heard Sir John Hall state?—Captain *Maughan.* I am dockmaster of the Shadwell entrance of the London Dock. With reference to the number of ships in the tiers below that, I have measured when there has been a number equal to that stated in the bye-laws, and I find it will leave a clear passage of 300 feet. When we have 20 sail at Bell-wharf upper tier, that leaves 300 feet clear; at Bell-wharf lower tier, 20, as stated in the bye-laws, leaves the necessary room. With 18 at at Stone-stairs and at Ratcliff-cross upper tier, and 16 at Ratcliff-cross lower tier, there is room. I believe we have also about 2,500 feet between our lower buoy and the Regent's Canal, which would admit of 200 feet between each tier, and presuming each stair takes 150 feet, would admit of another tier being put. I do not know how far the plan of Sir John Hall with his bridles may be practicable, but as it is mentioned with buoys to mark the channel, I think, if a buoy was put at the upper and lower bow of each vessel, it would mark the passage and prevent the vessels spreading either into the channel or too near the north shore. If a buoy was placed a captain would make fast to it, and the ships inside may be moored as they now are with their anchors. I doubt whether this plan with bridles would not occasion great confusion; it would be attended with enormous expense. I think it would appear that the laying down these bridles would occasion an expense of 500*l.* a tier. There might be a bridle for the outside ship to take up, or at least a buoy for the outer vessel to heave up and the other heave down, to be 200 feet apart, and then with 150 feet between each buoy to allow free access in and out. That would get six ships in the tier now occupied by five, and confining ourselves to the number laid down by the bye-laws, there would be full 300 feet passage.

89. *Chairman.* By the plan you have suggested, in addition to the number provided for by the bye-laws, another tier may be allowed?—Captain *Maughan.* Yes; there is space for another tier.

90. *Chairman.* If any gentleman, having heard what Captain Maughan has said, wishes to put any question, he may do so.

91. Mr. *Brinkald.* A gentlemen near me wishes to know how you would get this additional tier?—Captain *Maughan.* By the space insufficiently occupied [*pointing it out on the plan*] for vessels to take up a position. If buoys were laid down head up and down, it would

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would make the channel, and would keep the vessels from driving into the shore on the north. I think there is now nearly 200 feet between our lower buoy and Bell-wharf upper tier.

92. Mr. *Cloves.*—There are more than 400 feet; we have made a survey. I think another tier might be on that space; this tier which is there now might be 200 feet.

93. Captain *Fisher.* If you place them too close, that will interfere with their working. We are not speaking about the tiers being put nearer, but too far apart. The upper tier might be placed 200 feet more to the westward without inconvenience to the entrance.

94. Mr. *R. Smith.* Have not the Pelican-stairs tier and the Shadwell-dock tier been removed for the purpose of making an entrance into your eastern dock?—Captain *Maughan.* The Shadwell-dock tier certainly. Pelican-stairs tier has remained until the last three or four weeks, only somewhat higher up.—Captain *Fisher.* Pelican tier is considerably higher up.

95. Mr. *R. Smith.* Those two tiers were occupied by 24 vessels, consequently we have less room in that neighbourhood than we had for many years past.—Mr. *Cloves.* Not so many; we have had the Pelican tier, but it is not taken away, it is higher up.—Captain *Fisher.* Within the last few days it has been removed higher up, being found an obstruction.—Mr. *Drinkald.* There is a confusion about King James's Stairs, but there are two taken away. —Captain *Fisher.* We have taken away two.

96. *Chairman.* Are the committee to understand that by obtaining the new entrance to the Shadwell Docks, which under the Act of Parliament they are entitled to have, the effect has been the displacing two tiers of colliers?—Mr. *Cloves.* It is rather more; it is three tier according to the plan.—Mr. *Barchard.* We consider that there are three tiers removed, where we ought to lie, by the making of that entrance. Those tiers we call Pelican-stairs, Shadwell-dock and Stone-stairs, or Upper Bell-wharf; they are the three tiers containing, as we state, 44 ships, on which we used to moor, but on which we now do not moor.

97. Captain *Maughan.* How many tiers do you make to exist?—Mr. *Cloves.* If the St. Katharine's Dock should choose to make another entrance to their basin, there will be two tiers removed there perhaps, so that they come to the nuisance, the nuisance does not come to them, if it should be proved to be one.

98. Mr. *R. Smith.* Are you aware of the state of the water at Wapping, at King Edward Stairs, New Crane and King James's Stairs? Are you aware of the quantity of water there is for vessels to be moored there?—Captain *Maughan.* I believe very little; four or five feet. —Mr. *R. Smith.* Under the bye-law, as it stares me in the face, there are four tiers for the mooring of vessels, at which actually a boat can scarcely find water; they are what are described by the harbour-masters to be tiers, and yet at half-tide the ships are high and dry. I may give this evidence, probably, at some future time, but I am now desirous of knowing whether the harbour-masters know anything of the water in those different situations. There is a loss there of 36 ships, which are down in the bye-laws as capable of being moored there, whereas they are high and dry at half-ebb.

99. *Chairman.* Are you aware, Captain Maughan, that there is not water enough there to keep ships afloat at low water?—Captain *Maughan.* Certainly, there is not.

100. Mr. *R. Smith.* Do you know what depth of water there is at Botany-bay upper tier, at Botany-bay lower tier, and at Kidney Stairs?—Captain *Maughan.* I have not surveyed them; I believe there is very little.

101. Mr. *Hay.* Do not you consider that the buoys, when the vessels are away, would be a great nuisance to persons passing with common boats, and that they would be likely to get into the heels of vessels, between the rudder and the stern, and to bring them up?—Captain *Maughan.* I did not propose putting them down, but found it suggested in the bye-laws. I think that, if it were defined where they are to be, there would be no difficulty in ships coming up.

102. *Chairman.* The gentlemen will confine their questions to matters stated by Captain Maughan, information that may elucidate his own opinion. We shall no doubt hear evidence from other parties on the plan which has been suggested, and that will be the time for these questions to be proposed.

103. Mr. *Hunter.* You have stated that you thought if those bridles were put down it would create considerable confusion?—Captain *Maughan.* And therefore I proposed, if buoys were put down, that they should be single buoys.

104. Mr. *Hay.* I ask whether a buoy being left after the vessels are gone away (supposing there to be 15 or 18 to a tier), they would not become a nuisance to the vessels going up and down?—Captain *Maughan.* I think not; there will be 300 feet passage.

105. Mr. *R. Smith.* As Captain Smith has stated it would interfere with the navigation of 300 feet of vessels going up or down the river, would those buoys be liable to take hold of the heels of vessels as they are going up and down?—Captain *Maughan.* Presuming the buoys are to be left, and to create an obstruction; but you would never have less than the 300 feet passage, and you would then have no need to be more careful of those buoys than of the tiers.

106. Mr. *R. Smith.* Sir John Hall's view is, that these buoys should be permanent; would not vessels be pulled up by their heels?—Captain *Maughan.* They could not while the ships were there; when the vessels were away they might be.

107. Mr. *Drinkad.* Captain Maughan says that the 300 feet can be kept clear; what part of the Thames can be kept clear under such circumstances as might be put?—Captain *Maughan.* I confine myself to that part near Shadwell Stairs.

108. Mr. *Drinkald.* Have you not known that the Pool has been half full of colliers sometimes?—Captain *Maughan.* Certainly.

109. Mr. *Drinkald.* Then they might fall in with those chains. They would at certain periods leave many of those chains empty, and then the ships would be caught by their heels.—Captain *Maughan.* If there were 10 ships in the tiers, there being 10 bridles, the 10 ships would take them.—Captain *Smith.* They might be tolerably clear at times, certainly.

110. *Chairman.* Captain Walton, have you anything to say further than Captain Maughan has said?—Captain *Walton.* No.

111. *Chairman.* I believe, Captain Smith, you attend for the Grand Surrey Canal Company.—Captain *Smith.* I am dockmaster of the Grand Surrey Canal. There is no dock in London so annoyed with colliers as we are. While these regulations are under our consideration, we beg particularly to call your attention to the fixing the limits of the tier of colliers immediately above our dock. We do not complain of their annoying us wilfully; I believe the harbour-masters have done everything in their power to prevent it, but for want of specified boundaries the tier frequently moors so near our dolphin that we cannot with safety twist a ship into our entrance, I therefore beg to request this committee to adopt some plan by buoys or land-marks, that, in forming the tier, ships may know where to let go their anchors. That could be done by a mark on shore as well as a buoy on the river. All practical men here seem agreed that buoys are a nuisance to a certain extent. I believe I can refer to Captain Fisher and the other harbour-masters; he knows the fact of the annoyance as it regards our dock. I will therefore be desirable to confine the tier to a defined spot, and that the colliers may not have reason to say that their limits are not fixed. There might be landmarks on shore to show where they are to moor.

112. *Chairman.* You propose that there shall be a line of buoys within as well as without.—Captain *Smith.* No; I propose that as buoys are objected to, there shall be a mark set up upon the shore. There is now not any defined limit to direct where colliers are to let go their anchor. We do not wish to confine them to an improper distance; we have by our Act power over 300 feet, but sometimes, upon the present system, we have not actual power over 50; and in proof of this I can appeal to several gentlemen present, who know the fact, and to letters which I have addressed to the harbour-masters upon the subject.

113. Mr. *Burgess.* Is not the distance in the river marked off by a buoy?—Captain *Smith.* Yes; but these buoys are laid opposite to the dock entrance, and not to the westward.

114. Mr. *Cloves.* What tier annoys you most?—Captain *Smith.* The Mill-hole tier.

115. Mr. *Cloves.* You are aware how many ships are allowed by the corporation to lie there?—Captain *Smith.* I believe 10 or 12.—Mr. *Burgess.* I believe there are 20 sometimes there.—Mr. *Cloves.* Instead of five each way, the number allowed.—Mr. *Burgess.* Instead of five up and five down, there were 10 each way last week, owing to the neglect of the harbour-masters.—Captain *Smith.* I never appeal to them, for sometimes when a fleet of colliers is coming up they are obliged to encroach on the tiers. If I were peremptory with the harbour-masters I could confine them to a certain distance, but on a strong spring tide they sometimes are obliged to do what they do not wish; I know that fact.

116. Mr. *Cloves.* I do not speak of one tide, but the whole week.—Captain *Smith.* Mill-hole ought to be confined to 300 feet above our dolphin; vessels frequently lie within those 300 feet, and discharge their cargoes. We never object to this, when the encroachment is not too much, because it clears the ground of the river under their bottoms.

117. Mr. *Barchard.* You complain of Mill-hole lower tier being a hindrance; when that tier is moored in its proper place, what number of feet should you have between that tier and your dock entrance?—Captain *Smith.* Can you point out the proper limit of that tier?—Mr. *Cloves.* The harbour-master can do that of course.—Captain *Smith.* I do not know the limit of that tier; all I contend for is, that we have a right, which we can enforce if we think proper, over 300 feet from our entrance; and, if the masters of vessels choose to encroach upon that, and reduce it to 50, we have certainly a right to complain.

118. Mr. *Barchard.* I only ask for general information, what the distance is?—Captain *Smith.* That the harbour-master can explain.

119. Mr. *Barchard.* If that tier were properly moored, beginning at Herring-stairs, and ending at Mill-hole, if ten ships were to moor, would any annoyance arise to the entrance of your dock?—Captain *Smith.* We are not contending for the width of the tier, only for their not trenching upon us, so that we can take ships in in safety. I am contending for a particular interest, not for the general interest: that will be watched over here. I beg to say, if you moor that tier 100 feet from our dolphin we are satisfied, and will ask no more, though that is an encroachment of 200 feet upon our charter.

120. Mr. *Barchard.* If the tier were properly moored, beginning at the first and ending at the last spot I have named, and containing only the number of vessels allowed by the bye-laws, do you think there would be any inconvenience?—Captain *Smith.* I should think not: but the great difficulty is when a great number is coming up; for, supposing they cannot, from various accidents and causes, get to the station to which the harbour-masters have ordered them, they must be moored, for that tide, where they are.

121. Mr. *R. Smith.* I understand Captain Smith to state to the committee, that the ships are obliged to let go their anchor before they can enter the dock, from the effect of wind and tide. Captain *Smith.* I do not state that, but that they very improperly let go their anchor.

122. Mr. *R. Smith.* Have you not buoys laid down to make fast ropes to, to check them?—Captain *Smith.* We have.

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123. Mr. *R. Smith.* And you have dolphins as well?—Captain *Smith.* Yes, we have.

124. Mr. *R. Smith.* Then will not that inconvenience be avoided?—Captain *Smith.* No. The colliers encroach on the line of the buoys; it is not the buoys that can direct a vessel intending to enter the dock, inasmuch as the ships cannot have the use of the buoys. There is, sometimes, not the breadth of a ship between the tier of colliers and the dolphin, and the pilots have declared that they would not run the risk of bringing a ship up.

125. Mr. *Smith.* What distance below the entrance of your dock is the lower buoy laid?—Captain *Smith.* I should think they lie nearly in this direction.

126. Mr. *R. Smith.* Is it 100 feet?—Captain *Smith.* No; not 50.—Mr. *R. Smith.* Then that Mill-hole tier must be an inconvenience to you.

127. *Chairman.* Is there any other gentleman representing any of the docks; if not, I will go over the points suggested by Sir John Hall on behalf of the St. Katharine's Dock Company. Many of them are suggestions altogether for the committee, on which I will not trouble the gentlemen of the deputations to give us any opinion; but there are others which materially affect the interests they represent, and on which the committee would be happy to have the opinion of those gentlemen. The first is, "That the bye-laws undergo revision, with a view to embrace such amendments as they are susceptible of, in so far as the authority of the 13th section of the 10th Geo. 4, c. 124, extends." That is, with a view to matters afterwards adverted to. The next is, "That the penalties which are imposed by the 9th section of the said Act be made recoverable from the master, pilot, or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat." The law as it now stands makes those penalties recoverable from the owners, and this proposition is to render the law more effective by making them recoverable from other persons, namely, those on board, who will have the remedy of being able to value upon their owners. I suppose there can be no difference of opinion upon that being a more effective plan of enforcing order?—Mr. *Barchard.* We have no objection.

128. *Chairman.* The next is, "That penalties be imposed upon the masters, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat, which shall in any manner obstruct or impede the navigation of the river, and especially the passage of the width of not less than 300 feet, directed to be kept free and unobstructed by the bye-laws; or which ship, vessel or steam-boat shall be made fast or moored at any tier at which the ships, vessels or steam-boats shall amount to or exceed the number limited by any bye-law; and also of all lighters, barges, craft or boats which shall be laid at or made fast to the outerside of the outermost ship or vessel lying in any of such tiers, so that a channel of not less than 300 feet, in manner directed by the bye-law, shall be kept a clear, free and unobstructed passage."—Mr. *Blenkarne.* It appears to me this involves so serious an interference that it cannot be considered final. I understand that we are to have a copy of these papers, with what is stated here; and I trust that some future day will be given for the purpose of discussing and finally approving or disapproving this.

129. *Chairman.* It was suggested that every person who required, should have copies of these papers, and a reference to the minutes of this committee in the town-clerk's office; and that the meeting of this day should be considered as merely preliminary. The effect of this regulation will more immediately apply to the coal trade. It appears that three or four tiers which hitherto have been accommodated, have been removed by the dock entrances; and that, consequently, not more than 135 vessels at a time can now lie in the Pool for the delivery of coals, that most important trade. The cheapness of that article being so important to the inhabitants of the metropolis, I could wish that the gentlemen representing that trade should inform the committee whether they apprehend that 135 ships at a time, which appears to be the whole number that can be accommodated (if that width of passage is to be enforced), will meet the wants of that trade.—Mr. *Barchard.* In answer to that, I can state most decidedly, that the wants of the trade require pretty nearly, or quite, 250 ships in the Pool. I do not think the town can be duly supplied with coals with a less number than 250 ships; arising, in the first instance, from the numbers which are daily in work, and also the number required to be taken up for the purpose of getting ready to work. Under the old bye-laws the coal trade were allowed 250 ships: 44 have been taken off by the London Docks; I say, in short words, by the London Docks; now leaving spaces for only 206 in the Pool, that is, according to the mode laid down by the bye-laws; but it must be at the same time considered, that four tiers, comprising Wapping Dock, King Edward-stairs, New Crane and King James's-stairs, are now very little used; and also that the tier at Kidney-stairs is very little used; consequently, the spaces of 48 ships more are in fact abstracted from the number. With regard to the penalties that are proposed to be attached to all craft impeding the navigation, we have no objection to them, if a short time be allowed before any penalty shall attach.

130. *Chairman.* Sir John Hall recommends that that should be left to the discretion of the harbour-masters.—Mr. *Barchard.* We shall be quite satisfied with that. It is well known that if a barge is loaded in the early part of the morning, and the tide does not serve till the afternoon, the barge is put on board the ship, and as soon as loaded, dropped down; and a second, and third, probably, loaded before the tide serves to take them away; so that the space between the tiers is sometimes crowded during that short interval between the tides.

131. *Chairman.* In reference to penalties, if it is left discretionary, so that the persons owning the craft are not subject to an imperative and absolute penalty, but discretionary, according to a liberal construction, you would have no objection to that?—Mr. *Barchard.* None whatever.

132. Mr. *Blenkarne.* You stated that four tiers of vessels cannot lie where they used to do,

do, and where the bye-laws provide for their lying.—Mr. *Barchard.* I stated that they do not.

133. Mr. *Blenkarne.* The reason that they do not now lie there is, because all the unsaleable part of old London Bridge was thrown in, and that reduced the depth of water.—Mr. *Barchard.* I do not say they cannot lie there sometimes.

134. Mr. *Blenkarne.* Are you aware whether Union-stairs tier has not been very materially reduced as to water, since the rubbish of old London Bridge has been thrown in?—Mr. *Barchard.* I am not aware as to the particular fact.—Captain *Maughan.* I understand the tide has fallen full two feet more since the removal of the bridge than it did previously.—Mr. *Blenkarne.* I understand there is a very great alteration.

135. Mr. *Cloves.* We ask the favour of the committee allowing us, at some future period, to point out how we think 250 ships may be placed without creating obstruction, at the same time leaving a channel of 300 feet.—*Chairman.* That is a piece of information which will be of great service to the committee.

136. Mr. *Burgess.* Do you mean you could arrange for them as high up the Pool as they now are?—Mr. *Cloves.* That is a question I would reserve to a future opportunity.

137. *Chairman.* There are gentlemen here representing the interests of wharfingers; I should suppose it is very important to them that the river should be kept in as unobstructed a state as possible; and if the 300 feet space could be preserved, it must be in the highest degree desirable. The gentlemen representing the property on the river sides have heard what has been stated by the gentlemen representing the coal trade, that the number to which Sir John Hall would limit the coal trade in the Pool would not be sufficient for the wants of the trade. If a greater number of coal ships should be accommodated for that trade, the effect of that, unless they could be differently arranged, would be to diminish the 300 feet: we should be glad to hear how that would affect the interests of the wharfingers, or whether they have any information to give to the committee upon that subject.—Mr. *Barchard.* I beg to say we should be extremely unwilling to interfere with the giving 300 feet waterway up the middle of the river; we do not wish to trench upon that.

138. Mr. *Blenkarne.* Do you wish to bring the vessels in the coal trade higher up than they are now?—Mr. *Barchard.* No.—Mr. *Blenkarne.* Because we find them advancing higher up, which is a great inconvenience to vessels discharging at sufferance wharfs and legal quays.

139. Mr. *Drinkald.* I would ask whether they do not confine themselves to the Lower Pool, not the Upper Pool?—Mr. *Barchard.* Decidedly so.

140. *Chairman.* The committee will see that, if the gentlemen of the coal trade can point out a practical mode of accommodating a sufficient number of ships for the wants of that trade, and at the same time have a channel of 300 feet clear, we shall have got rid of most of the difficulties which present themselves. If the gentlemen, therefore, will be prepared to lay such a plan before the committee the next day they meet, we shall be extremely glad to see it.—Mr. *R. Smith.* Mr. Chairman, I have, on behalf of the legal quay wharfingers, to request that you will be kind enough to give us some future opportunity of stating to this committee any objections we have to the memorial now before you. I respectfully request that until we have a copy of Sir John Hall's memorial, with the evidence he has given to-day, we may not be pressed to submit any observations. I feel it very important for the interest I represent, which I am quite sure you and the committee feel to be a very considerable one, that I should not be interrogated in the course of this day.

141. *Chairman.* Probably the gentlemen present may wish to have copies of Sir John Hall's communication to this committee, and the other documents which have been read, as well as the long statement made by Sir John Hall to the committee at this time, before they proceed further; and as we are not now prepared to conclude this inquiry, if that is their wish, I am sure the committee will be quite ready to accede to it, and to postpone the further consideration of the subject till all the parties have had the advantage of possession of these documents. We may possibly be losing time by going over these matters now we may have to begin *de novo.*—Mr. *Blenkarne.* I think, Sir, that will be the better course. A perusal of those documents will give us an idea of what we are going into.

142. *Chairman.* When the short-hand writer's notes are furnished, the parties shall have access to them.—Mr. *Hunter.* I think whatever these gentlemen present should be in writing.—Mr. *Barchard.* Perhaps it may be proper to say, we have taken a plan of the river, and have laid down upon that plan, or, in fact, are laying down upon that plan, the spaces we propose to be occupied by tiers of colliers: that plan shall be laid upon the table. With reference to one point, I was asked whether we proposed to come up any higher; I said, not any higher: I do not know that I am borne out in that fact, because we should propose to remove the tiers. I do not wish, therefore, to be confined to one absolute spot.

143. *Chairman.* We may as well still, perhaps, proceed clause by clause, through this paper; it may elicit observations from the gentlemen present. The next clause is, "That a penalty be imposed on the owner, master, pilot, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat, which shall lie or moor at or in any of the in-shore passages or ferries, so as to obstruct the transit thereof."—Mr. *Drinkald.* That is provided for by the Act of Parliament, by the 9th clause: "And be it further enacted, that in case the owner, master, pilot, servant or other person having the charge or command of any ship or other vessel, or steam-boat (except those of the corporation of the Trinity House), coming into, lying or being in the said river Thames, between London Bridge and Bugsby's Hole (except as hereinafter excepted), shall refuse or neglect to moor, unmoor, move or remove the same, according to the direction and notice of any harbour-master, to him or them given in writing, or left with some person or persons on board the said ship,

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vessel or steam-boat, within such reasonable time after the giving or leaving such direction and notice as shall be mentioned in such direction and notice; then and in every such case a sum not exceeding 5 *l.* for every hour:" therefore, there is that power.

144. *Chairman.* That appears to have been overlooked by Sir John Hall.—Captain *Fisher.* Sir John Hall objected to that, on the ground of its being confined to a written notice.—Mr. *Drinkald.* It is better, at once, to speak out on this subject: the fact is, that penalties have been recovered where the notices have been served by the harbour-masters correctly, in writing, as required by the Act; but where they have given them not in writing they have failed.—Captain *Fisher.* But there has been no attempt to convict, where verbal orders have been given. Mr. *Drinkald.* Then, where they have not been convicted, they have been such written orders as ought not to be left on board the ship.—*Chairman.* Sir John Hall recommends that the penalty should be recoverable from the persons on board.—Mr. *Drinkald.* That is already provided for by that clause.

145. *Chairman.* The next clause is, "That powers be granted to the harbour-masters to order to be removed to such place as they may direct, and, if necessary, to cause to be removed, any ship, vessel, steam-boat, craft, lighter, barge or boat lying in the port of London, between Blackwall and London Bridge, forthwith, upon verbal notice; the expense of removal to be paid by the master or owners, unless immediately complied with." It is not necessary to make any further observations upon that, probably, at present. "That penalties be imposed upon all and every person who shall obstruct the harbour-masters in the execution of their duty, and use abusive and offensive language to them, and who shall refuse to obey their orders." I fear there will be some difficulty in making seamen and long-shore men civil, or in teaching them to use polite language upon all occasions.—Mr. *Drinkald.* I believe I have had as much to do with them as any man; and I can keep them in order by punishing them when they offend.

146. Captain *Fisher.* You can punish them only for an infringement of the laws.—Mr. *Horne.* But we say that they have been passed over when they have offended, without being punished, by the harbour-masters; they have taken no means to put the law into effect.—Captain *Fisher.* I can prove that we have prosecuted them and punished them, quite in contradiction to what that gentleman says.

147. *Chairman.* Mr. Horne's observation is, that though you may have done it sometimes, yet you do not always do it.—Captain *Fisher.* We must, in what we do, act subject to the wind and tides; we cannot go and remove a ship like a hackney-coach or a coal-cart.

148. Mr. *Barchard.* I will read the statement of the number ordered by the bye-laws to lie in tiers, and the number actually lying in tiers. The number ordered to lie in Mill-hole is 10; the number lying there was 19 on the 17th of January.—Mr. *Drinkald.* Can you tell how long they lay?—The harbour-master says they cannot be removed at a moment's warning. If nine more than the number allowed got into that tier, it took probably some time to remove the nine.—Mr. *Barchard.* They had not received orders to move on that day. On the 8th of January, in Mill-hole lower tier, 10 being the number allowed, there were 19 still lying there, and had not received orders to move. On the 9th of January 17 were lying there, and had received no orders to move. On the 10th of January there were 18 lying there, the Mary and Ann outside, and had received no orders to move. On the 11th of January 20 were lying there, and had received no orders to move. On the 12th of January 13 were lying there, without orders. On the 14th of January 18 were lying there; the Joseph and Isabella, then lying outside, had not been ordered to go away. On the 15th of January 18 were lying there; the Avon was the outside ship, and had not been ordered away. On the 16th of January 19 were lying there, and had not been ordered away. On the 17th of January 21 were lying there, and the same ship was lying outside on that day that was lying outside some day or days before. On the 18th of January 16 were lying there, with the same ship lying outside as before. On the 19th of January 16 were lying there. On the 21st of January 16 were lying there, and the outside ones had not been ordered away. On the 22d of January 19 were lying there, and had not been ordered away. On the 23d of January 15 were lying there, and one ordered to move. On the 24th of January 14 were lying there, and no orders to move. On the 25th of January 16 were lying there, without orders. On the 26th of January 15 were lying there, with the Jemima outside, which had been ordered to remove from Church-hole. I will not go through the other tiers.

149. Mr. *Scott.* Is that the tier so much complained of by the Surrey Canal.—Mr. *Barchard.* Yes.

150. Mr. *Scott.* I should like to know what the harbour-master says respecting the impediment at this tier?—Captain *Smith.* The impediment to the Grand Surrey Dock does not arise from the width of the tier; it is caused by the coming down close to the dock entrance. When the ships are cleared away from the opposite side, it is very natural that they should come in there.—Captain *Fisher.* I can explain all this.

151. *Chairman.* Captain Fisher wishes to give an explanation of this matter. The gentleman having stated that there are a larger number of ships permitted to remain in tiers than there ought to have been, and not ordered away by the harbour-masters, it appears due to Captain Fisher to give him an opportunity of explaining that circumstance.—Captain *Fisher.* The reason that these tiers have had more in them than the bye-laws specify is from the circumstance of the tiers on the opposite side not being avilable for want of water, in consequence of which a clear passage of upwards of 300 feet is created by the tiers opposite, and from the frequent accumulations of colliers below, for want of room and space in the Pool, we are obliged, occasionally, to put more than the number allowed in the tiers.

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This gentleman says it is necessary to have 250 sail of colliers in the Pool, and the tiers are sometimes overloaded. There has always been a free navigation; but this has been entirely with a view to accommodate the supply of coals to the metropolis, and to prevent expense to the coal-merchants; it is done for no other point; but instead of our having 250 sail, we have hardly ever exceeded 150 sail at one time in the Pool. It is necessary to enlarge the tiers, as the tiers opposite are removed, which has created a wider space there for navigation.

152. *Chairman.* The circumstance of the removal of the ships from the opposite shore has enabled you to place a greater number of vessels in those tiers, and at the same time not obstruct the navigation?—Captain *Fisher.* Just so.

153. Mr. *R. Smith.* On the 18th of December you accompanied the navigation committee down to Gravesend; be kind enough to state the number of colliers you saw at anchor between the lower part of Bugsby-hole and Limehouse-reach.—Captain *Fisher.* Nearly 300; in fact there are obstructions, from the immense number of colliers, all the way down to Greenhithe.

154. Captain *Maughan.* It has been repeatedly stated to me that the Pool is full of colliers, and that the vessels are impeded.—Captain *Fisher.* The pilots have stated that there was as great difficulty in bringing up a vessel from Greenhithe to Blackwall as from Blackwall to London Bridge.

155. Mr. *R. Smith.* The immense number of ships lying at single anchor has probably been the reason why you have crowded the Pool beyond that which the bye-laws allowed?—Captain *Fisher.* Yes; and to accommodate the coal trade.

156. *Chairman.* Did you ever know so large a number of coal vessels in the river at one time before?—Captain *Fisher.* Never.

157. *Chairman.* It has not been usual that there should be so large a number?—Captain *Fisher.* I never knew it before.

158. *Chairman.* That must have arisen from particular circumstances?—Captain *Fisher.* I believe it arises from so many vessels having come home from different trades, and going into the coal trade.—Captain *Smith.* It appears that it arises in a great measure from so large a number of vessels being prevented going over to Holland.

159. Mr. *Drinkald.* I should be glad to ask a question of the gentlemen of the coal trade: what difficulty would there be in obtaining some dock accommodation, if not to the whole extent of the coal trade, whether accommodation could not be made for some of them?—It appears to be an advancing trade in the river Thames; it seems that the working positions are not sufficient for their accommodation, and I apprehend they will become more insufficient every year.

160. *Chairman.* The question of colliers' docks must have undergone the anxious consideration of the gentlemen in the coal trade for some time past, there can be doubt; the committee will, therefore, be glad to hear those gentlemen upon that subject.

161. Mr. *Barchard.* We shall be very happy to give to the committee every information. Perhaps the gentleman who proposes the question to us is not aware of the extent to which the trade is carried on by craft per day: we require 340 craft to go down to load, and to pass up to London; the facility with which those craft go down and are loaded and brought up again is such, that in my opinion no docks could be constructed to give the accommodation required for the coal trade of London. It is not like other trades; a trifling expense upon a valuable commodity is of little consequence; but coal is a commodity of little value, yet of great weight and bulk, and requiring great dispatch for its delivery from the ship to the buyers along shore. A very large portion of the coals is delivered to large consumers all along the banks of the river by barges; the charge for this is a mere trifle above the absolute cost: extra expense must be incurred by increased difficulty in the delivery; the time consumed in pulling the barges into dock and letting them out would occasion extra expense, and the cost to large consumers be very much enhanced. It is of little consequence to a housekeeper taking seven or 14 tons a year, whether he pays a little more or not; but to a large manufacturer, burning an enormous quantity, it is of serious consequence. Colliers' docks would be a great inconvenience to the coal trade; the coal-merchant would require double the number of barges and more men; for no dock could give the accommodation of allowing a barge to go down, load and return the same day: a barge going down in the morning could not by possibility get loaded and come up again to her destination; or, if she came out of the dock that day, which she might possibly do, she could not get up. Independent of the difficulty that would arise from accommodating the number of ships that come up at times, a greater number of barges and men must be provided. We have had 325 ships arrive this year in 12 hours. The number of barges we call 300 a day, but it may amount to 500 in one day: I apprehend they could not be docked, and the object effected.

162. Mr. *Blenkarne.* I should think 2 *d.* per ton could not be of much consequence to any party: and that dock accommodation could very well be had. I believe the quantity brought in each vessel is 350 tons, taking the colliers generally. The argument bears on the difficulty of getting down to the vessel, loading, and getting up in the day; and that may apply in a degree; but on the flood-tide they might get out of any dock. I should say it would not make so much difference as is supposed: I was in the coal trade myself a few years.

163. *Chairman.* Is the committee to understand that the question of colliers' docks has undergone the serious consideration of gentlemen practically acquainted with the coal trade, and that the impression on the minds of those gentlemen is, that such is the peculiar nature of the coal trade, that the docking of coal ships, however convenient to other trades, would be most inconvenient to them?—Mr. *Barchard.* Most decidedly. It has received

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the consideration of the trade in all its bearings, and we are universally of opinion that docking the coal ships and coal barges is not compatible with the coal trade: that it may be done is very true, but it cannot be done with benefit to the parties or the public.

164. Mr. *Blenkarne.* I am aware that that is the impression. The coal trade require 250 vessels to be in a working position to supply the demands of the coal trade; but supposing you fail in the plan you now propose, and that no more than 135 vessels can be accommodated, then the rest of the vessels must be kept down below, and not in a working condition; would not the inconvenience of that be greater than that of docking?—Mr. *Barchard.* Unquestionably, if only 135 can be allowed to come into the river, some other plan must be resorted to; for that number would not supply the town. If only 135 can be allowed to come into the port of London, the rest must lie down at Gravesend, or in some other part of the river.

165. *Chairman.* I have not attempted to argue this matter with the gentlemen of the coal trade. Assuming that they understand their own trade, and the cheapest manner of working the ships better than any other parties, it is the result of their opinion that docking the coal ships would lead to greater expense than working them in the stream.—Mr. *Barchard.* That is the universal opinion of the coal trade.

166. Mr. *Drinkald.* I would ask the gentlemen, whether they have not 150 men appointed as weighers, to weigh the coals at the ships?—Mr. *Barchard.* Yes, we have.

167. *Chairman.* Are they constantly at work?—Mr. *Barchard.* Yes; my reason for naming 250 is, that there will be a number cleared and going down, and a number coming up to replace those going down; including those, we arrive at the conclusion that accommodation is required for 250.

168. *Chairman.* Have you recently increased the number of coal-weighers?—Mr. *Barchard.* We have.

169. *Chairman.* That you found necessary from the increased consumption of coals?—Mr. *Barchard.* Yes; we have imported 29,000 over the preceding year, and it is continually increasing.

170. *Chairman.* With respect to Sir John Hall's plan for bridles and buoys, to mark out the line, there are gentlemen who are, no doubt, well acquainted with the practicability of this scheme, and its effect on the navigation. Provided the craft could have access to the ships, and they could be delivered with the same facility that they are with their anchors at present, it certainly would, in some respects, be desirable that the coal trade should have such moorings; but what I wish to put to the gentlemen who are practical lightermen and watermen is, as to the effect of these buoys and moorings on the navigation; whether it would be a serious obstruction and nuisance to the navigation, particularly with reference to the large and small craft. Mr. Drinkald, you, no doubt, understand that matter?—Mr. *Drinkald.* I am in the same situation as Mr. Smith; I was not present at the commencement of the business of to-day, and did not hear all Sir John Hall's observations; but I know that buoys put in the river would be a perfect nuisance; and I am quite satisfied that his plan could never be carried into effect without a public nuisance being created.

171. *Chairman.* He proposes not to place many; but that, looking from one to another, they should describe a line.—Mr. *Drinkald.* I understood him to say that there should be a buoy put down to each of those bridles.—Mr. *Barchard.* I think that very great inconvenience would arise to persons in crossing the river in boats, which are now in a very fragile state; that there would be many accidents.—Mr. *Drinkald.* I opposed the putting down of buoys. I remember a fishing smack being lost, by the runner and tackle hanging over the side, and catching a buoy and sinking her: but with respect to small craft of all descriptions, in a strong ebb-tide or a flood-tide, they would be perfectly in the way, and there could be no necessity for them. If there are proper rules and regulations laid down, such as the harbour-masters can carry into effect, a great deal of difficulty can be obviated. It was stated by the London dock-master, that there is a tier nearly 200 feet lower than it ought to be: whose business is it to see that it is in its proper place?—That of the harbour-masters. If they are on duty every day, they do not want buoys to know where the vessels are to be placed. Let them have land-marks, and the people coming up with the ships will find out where they are to lie. When the vessels were away, if there were buoys, and they were not sheltered, ships and coasters would be continually getting them into their heels, and would have to pay for damage, as well as sustain damage themselves.

172. *Chairman.* Are you of opinion that large buoys placed for the purpose of describing the lines, so as to mark out distinctly the 300 feet clear passage, would be a great nuisance to the navigation, and that the same end might be accomplished by land-marks?—Mr. *Drinkald.* No doubt of it. The London Dock Company had one buoy, and they put another down, and that was considered such a nuisance that the port of London committee complained of it, and it was taken up.

173. Captain *Fisher.* That was in consequence of its being put down too far off in the river.—Mr. *Drinkald.* But where are those to be placed, unless it is in the race of the tide.

174. *Chairman.* I wish to ask you what would be your opinion of the accumulation of mud between the tiers?—Mr. *Drinkald.* I think there would be a great accumulation of mud wherever there is an obstruction. Where there are moorings laid down in the river Thames, wherever there is a stone laid down for moorings, there is an accumulation about it.—Captain *Fisher.* Yes, that is always the case.—*Chairman.* You feel a great objection to it?—Mr. *Dinkald.* Certainly.

175. *Chairman.* I think there is a good deal about these moorings that deserves consideration, and that we must not hastily reject the proposition; that is a distinct thing from the buoys to mark off the line; each of these bridles must have a buoy.—Mr. *Drinkald.*

I object

I object to those mooring-chains being laid down in this way. When colliers come up they have not a moment to let go their anchor, and they would catch hold of them. Notwithstanding buoys are laid down in Blackwall Reach, the vessels are constantly catching hold of the mooring-chains now.

176. Captain *Smith.* You have stated that across the river there may be an accumulation of mud; you are quite aware that all the colliers are moored with their anchors head and stern, up and down; do not you believe that those anchors are continually raising up the bed of the river, more or less, three or four feet; and that, from the constant change of ships lying on the spot, their anchoring there is the means of keeping the deep water at Bell Wharf and Shadwell Dock?—Mr. *Drinkald.* I have known where colliers have been kept at sea a short time, that the ground has risen up one foot to 18 inches; and that when they have returned, the ground being turned up by their anchors, and the current under their bottoms, there has been more water, a foot or 18 inches, immediately.

177. Mr. *J. Smith.* What would be the consequence if the colliers were kept out of those spots?—Mr. *Drinkald.* It would immediately fill up.

178. *Chairman.* The committee are to understand from Mr. Drinkald, that colliers in taking their positions are obliged to let go their anchors, and that in so doing there would be a danger of those anchors getting foul of the mooring-chains?—Mr. *Drinkald.* Yes.

179. *Chairman.* And that the effect of such moorings, if they were permanent, would be to create banks, such moorings being unlike ships' anchors, which are continually changing their position?—Mr. *Drinkald.* Just so.

180. Mr. *R. Smith.* You are aware that there are mooring-chains thrown from one side of the river to the other, to the number of nine or ten, commencing at the lower part of Blackwall coming up to the City Canal?—Captain *Fisher.* Yes.

181. Mr. *R. Smith.* In your experience during the time you have been harbour-master have you known the vessels catch hold of those chains by letting go their anchor?—Captain *Fisher.* That has frequently occurred; in fact, it has sometimes taken two or three days to get them clear; we have been obliged to send down our own mooring lighter to get them clear.

182. Mr. *Banyon.* You have heard, Mr. Chairman, of many of the disadvantages that will occur by making those moorings across, and by the suspension of buoys with chains to them. As to any advantage to be gained by them, which is not equally attained by the cables, the object being to keep the ships in a certain position, I cannot see that this plan will have the effect of keeping them in a particular position more than that of cables. They must be slack enough for the rising and falling. The wind, which, as Sir John Hall says, has an effect upon them in forcing them out into the stream, will have nearly the same effect upon these chains. It would be a tremendous expense to the corporation to lay down those chains, without any good effect.

183. Mr *Drinkald.* You are of opinion that, the vessels being moored fore and aft, the mooring-chains would require nearly the same play as the anchors and cables do now?—Mr. *Banyon.* Yes, I am.

184. *Chairman.* The ships moored in the manner proposed, in tiers, would have the same play as if they were moored by their anchors?—Mr. *Banyon.* There would be very little difference. In addition, buoys are to be placed in certain situations, at the termination of those bridles, to mark the line the vessels are to lie in. I will appeal to the harbour-master, whether boats laden, going out a-head of them, when there is a heavy land-water, may not be caught by those buoys, and probably upset, and the King's subjects lose their lives. Take a square-bottomed craft, I speak particularly of the larger ones,—should they get athwart the buoy in a heavy tide, every one must be aware what would be the consequence to the bottoms of those barges; the mischief would be incalculable to the trade on the river. —Captain *Fisher.* Wherries crossing the river at night, and light vessels, would go over them, and there would be loss of life.—Mr. *Hunter.* The risk of loss of life, incurred by placing them in the situation recommended by Sir John Hall, would, I am sure, be great.—Mr. *Banyon.* He wishes to place them in the race of the tide, where the lives of His Majesty's subjects, and their property, would suffer. Even a square-bottomed craft, deeply laden, coming on those chains, would probably sink, or the bottom suffer great injury, and the property be damaged or lost.

185. *Chairman.* Now, gentlemen, here is a regulation proposed which affects you: "That not more than 130 vessels coal-laden be permitted to lie or moor in the stream, or at any of the tiers above the entrance to the West India Docks, in Limehouse-reach, at one and the same time, for the purpose of discharging, or, after having discharged, to take in their ballast." What, in your opinion, would be the effect upon your trade of such a proposition being made a law?—Mr. *Barchard.* It is the unanimous opinion of the coal trade, that 135 ships lying in the river are not sufficient for the supply of London. We are also of opinion that, if properly moored, there is more or less anchor-room for 250 sail, leaving a clear passage of 300 feet, without encumbering any other parties who have occasion to bring their ships into the river. We shall be prepared to show this by a plan we have drawn, which we have every reason to believe will be found more or less correct, and to answer the purpose required. This plan we shall be happy to produce at the next meeting of the committee.

186. *Chairman.* The next regulation respects steam-boats. It is perhaps sufficient at present to say, that the subject of steam-boats is under the consideration of Parliament.

187. Mr. *Drinkald.* It will come before Parliament to consider that subject. Sir John Hall spoke of vessels paying half-a-guinea for mooring and unmooring: I believe there is not one who pays more than 5*s.* in the Upper Pool for mooring. I will mention one thing, which I have often complained about, ships lying up for sale in the river Thames, which the harbour-masters have not ordered away. The harbour-master has the power of ordering them

them away, under a penalty of 10 *l.* The owners take them out of the docks, and let them lie, to save the tonnage upon them. I believe the dock charge is not above a halfpenny a ton; but notwithstanding that, empty ships and ships for sale are allowed to lie in the river, to the annoyance of the colliers and the trade of the port of London. I will ask Captain Fisher whether he has ever ordered those ships away from the tiers where they have been placed?—Captain *Fisher.* Every vessel seen broomed by the harbour-master is ordered away to a mud tier. We have frequently ordered them into dock; but the question is, will you pay the expenses? we cannot afford to pay. Every vessel which has been seen broomed, or laid up for sale, has been ordered away. I do not think the harbour-masters have suffered them to remain 24 hours.

188. Mr. *Drinkald.* I will ask whether vessels from North America or the Baltic, or other places, are not suffered to be laid up for the winter, with their upmasts struck? and why they have not been ordered into dock or to the mud?—Captain *Fisher.* We do not take upon ourselves to order any vessel into a dock where it would create expense; it is not the duty of the harbour-master to harass the trade of the port of London; and what we have done has been with reference to the general interest.

189. Mr. *Drinkald.* If those ships were not there, there would be room for the colliers to unload.—Captain *Fisher.* I can state that at this very time there are 16 colliers lying at some of those stairs, where so many are not provided for by the bye-laws; we have put two colliers outside those tiers, and one inside: we have been obliged to do it during the winter months, to accommodate the coal trade. The tiers which Mr. Drinkald speaks of are principally used by large vessels with iron, vessels from Ireland with provisions, vessels bringing corn to the granaries, and by a number of small Baltic men, connected with the wharfs near that place: shall we drive away those vessels and their trade to make room for the colliers?

190. Mr. *Blenkarne.* The point appears to be, is a certain description of vessels with cargoes to have indulgence? It is to be lamented that vessels lying up for the winter, or lying for sale, should be allowed to remain where the room is required for the vessels really carrying on business.—Captain *Fisher.* From the nature of those moorings, if they were solely occupied by colliers, they could not be worked there, which would cause much delay and demurrage.

191. Mr. *Barchard.* Our ships would lie at Prince's-stairs and Elephant-stairs, if they were not occupied by light ships lying up or ships in other trades.—Mr. *Blenkarne.* To what number?—Mr. *Barchard.* I cannot say; but those places are not occupied by colliers.—Mr. *Blenkarne.* Colliers drawing 15 or 16 feet would not like to lie there.—Mr. *Barchard.* We have all sizes, some drawing only 11 or 12 feet.

192. *Chairman.* There are two or three other subjects on which we would ask the opinion of the gentlemen present upon this occasion. The first, "that a provision be inserted in the Bill for regulating the speed of steam-boats between Cuckold's Point and London Bridge; also a provision to be inserted in the Bill, for removing the shoals and banks of mud, silt and other stuff, not being fit for the purposes of ballast, and to deepen the bed of the river, and to preserve a proper depth of channel in the river Thames between Blackwall and London Bridge." I have heard it stated, that the corporation of the Trinity House will not apply their powers to any other shoal than such as is fit for ballast, and by the taking up of which they can make a profit; that when their attention has been called to shoals that were not of a valuable material for ballast, they have refused to operate upon them.—Mr. *Blenkarne.* That is true; I paid them 40 *l.* a few months ago for removing some mud.—Captain *Fisher.* That is quite correct.

193. *Chairman.* Are there any funds of this committee applicable to such a subject? Very serious obstructions in the bed of the river must necessarily be growing up. If they are not attended to, I think there is no doubt that it would be desirable to clear up that point,—if we go to Parliament,—either furnishing this committee with the power, or compelling the corporation of the Trinity House to do it.—Mr. *Drinkald.* It may be presumption in me, sir, but I would suggest that you should write to the Trinity House, and get a written answer from them. As a reason for this, I will mention a case in point. The London Bridge building committee applied to the Trinity House to remove the shoal above new London Bridge; they refused to do it until they were informed that the first Act that passed would contain a provision compelling such a removal; they then sent their ballast-lighter up, fearing that Parliament would be applied to upon the subject.

194. *Chairman.* You advise the committee to test them, by making an official application to them, in some instance where there is a shoal not consisting of valuable ballast; and, if they refuse, that there will be then a case made out to justify the taking up the matter seriously?—Mr. *Drinkald.* Yes.—Mr. *Blenkarne.* I would beg to support Mr. Drinkald's application, inasmuch as when we applied to the Trinity House to remove a shoal, they would not do it, unless they could get 40 tons in a day. We entered into a bargain with them, and paid the sum of 45 *l.*; but, on going before the principals of the Trinity House, they acknowledged that, when once London Bridge was built, there were several shoals to be removed, and it was intended to make one uniform bed of the river. I think, therefore, that it is worth while to make the trial; probably it will not be in vain.

195. *Chairman.* You understand that the Trinity House believe there will be an alteration of the bed of the river, in consequence of the removal of London Bridge; and that it would be premature in them to commence, until they saw what that would be?—Mr. *Blenkarne.* Yes, sir; but I will go further. There is a very large hill, about 200 yards below London Bridge; it is the accumulation from the force of the tide in passing through London Bridge: since they have pulled down the bridge they have thrown in the old stuff. That, as I have already

already stated, they have it in contemplation to remove; but it has been useless to do anything until old London Bridge was entirely removed.

196. *Chairman.* There is another document which has not been read. It is the report of one of the officers, adverting to the frequent accidents that occur, which are principally in the wherries; many of them, it appears, are not fit to be licensed for the numbers they are permitted to carry. Here are some rulers of the Waterman's Company here; and I would throw this out as a suggestion, if we have to go to Parliament, whether the committee should ask of Parliament to make some enactment as to wherries, similar in principle to that for stage-coaches?—Mr. *Drinkald.* We have the dimensions of boats to be licensed for the river Thames. A great many boats have been presented since the autumn of the year 1828, which cannot be licensed at all; some are licensed for four that were intended for six, and some for six that were intended for eight: they get a licence for four or six passengers, according as they are fit for that number. As far as the Waterman's Company are concerned, they do the best they can; but the watermen are in a state of great destitution, and are frequently exposed to serious danger every time the steam-boats come in. They are a great nuisance; I have seen the water go over the stern of a large corn-barge empty; they will not stop for anything. I remember when there used to be men scraping the shores of the Thames at the landings; but the steam-boats now wash them, and carry off everything; they wash all the way, up and down. With respect to the boats, all that the Watermen's Company can do is to license them for the number they are really fit for; they cannot make the boat-builders build their boats according to the specification of the Act of Parliament.

197. *Chairman.* The general impression upon the public mind is, that the wherries now in use are not safe, and that prevents many timid persons going in them. I throw this out, because I think it would be beneficial to the watermen if the public had more confidence in their boats; and that it would be for the serious consideration of those who act in behalf of those men, that they should take measures to ensure a safer description of wherries than those at present used on the river Thames. It may be a proper subject of consideration for this committee, if they go to Parliament, whether they will not insert a clause to give a greater protection to the public.—Mr. *Drinkald.* As far as I am concerned, I have no objection. When I tell you I have had to punish 60 and 70 men in a day, you will not be surprised that I should wish that that should be done; but if the steam-boats are allowed to create the inconvenience they have created of late, I fear little can be done with the watermen.—Mr. *Banyon.* If they have larger boats they will not be able to row against the tide, or they will be obliged to have more men; and there ought then to be a double fare. Mr. ———. You seldom hear of any accident at Greenwich, or where they use larger boats. —Mr. *Banyon.* I hear of them constantly. At Blackwall there was a melancholy case in the autumn of the year.

198. *Chairman.* The whole question respecting steam-boats, and the effect of steam-boats putting in peril the lives of persons on the river, will come under the consideration of Parliament, therefore it would be premature for us to do anything in that; but if the gentlemen who represent the Watermen's Company think that, by persisting in the use of these fragile and unsafe boats now in use, they will make out a case to induce the Legislature to repel the steam-navigation down to Greenwich or Blackwall, which affords so much comfort and convenience to so large a portion of the people of the metropolis, I am inclined to think they will be mistaken.—Mr. *Drinkald.* The water raised by the steam-vessels goes right over the coal-barges. I have heard them called to slacken their engines, but they never regard it.

199. *Chairman.* Gentlemen, in the name of the committee I thank you very much for your attendance upon us to-day, and for the valuable information you have given us; and I hope you will do us a similar favour on some future occasion or occasions, when it will be convenient for the committee to examine further into these matters. To-day's proceedings may be considered as merely preliminary; the subject being of so much importance to the various commercial interests connected with this great port, I am sure this committee will give it their patient investigation, and will be exceedingly obliged by the fullest information from practical men. The documents which have moved us to this inquiry will be printed, and the short-hand notes will be transcribed, and will lie at the town-clerk's office for the inspection of any gentleman who may wish to see them: in case the committee should resolve to print them, every gentleman who has given any information to the committee will have permission to correct them before they go to press.

200. Mr. *Barchard.* I am requested by the gentlemen around me to return thanks to the chairman and to the committee for the attention they have given to the circumstances of the trade, and the very important business before them.—*Chairman.* The gentlemen of the committee feel that what they have done is no more than their duty. If their conduct has elicited your approbation, it is to them a source of gratification.

[Adjourned.

Tuesday, 3d February 1833.

No. 1.
Proceedings of the Common Council.

THAMES NAVIGATION AND PORT OF LONDON SUB-COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

201. The following documents were laid before the committee, and read.

202. REPORT of Harbour-masters on Letter and Memorandum of Sir John Hall, Secretary to the St. Katharine's Dock Company.

At a By-meeting of Harbour-masters, held at the Office, St. Katherine's, this 16th day of December, 1832; present, Captain Fisher, Mr. Charles Rowland, and Lieutenant William Mayott.

A letter from Mr. Town-clerk, enclosing the copy of a letter received from Sir John Hall, secretary to the St. Katharine's Dock Company, dated 23d November 1832, was laid before the meeting, and read; the further consideration of which was adjourned until the next monthly meeting of harbour-masters.

(signed) *William Mayott.*
John Fisher.
Charles Rowland.

203. At the Monthly Meeting of Harbour-masters, held at the Office, St. Katharine's, this 27th day of December 1832; present, Captain John Fisher, Mr. William Cousens, and Lieutenant William Mayott.

The proceedings of the last by-meeting of harbour-masters were taken into consideration, and this meeting, in reply to Sir John Hall's communication, beg leave to recommend the following observations, for the information of the worshipful Thames navigation and port of London committee.

The bye-laws to undergo revision, with a view to embrace such amendments as they are susceptible of, in so far as the authority of the 13th section of the 10th Geo. 4, c. 124, extends.

1. The penalties which are imposed by the 9th section of the said Act, to be made recoverable from the master, pilot, or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft, or boat.

The harbour-masters suggest that, in default thereof, the penalties and expenses to be recovered upon the said ship, vessel, steam-boat, lighter, barge, craft, or boat. Mr. Cousens's opinion upon this clause is, that he thinks the present Act of Parliament sufficiently strong for the purposes contemplated by the Legislature.

2. That penalties be imposed upon the masters, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft, or boat which shall in any manner obstruct or impede the navigation of the river, and especially the passage of the width of not less than 300 feet, directed to be kept free and unobstructed by the bye-laws; or which ship, vessel, or steam-boat shall be made fast or moored at any tier at which the ships, vessels, or steam-boats shall amount to or exceed the number limited by any bye-law; and also of all lighters, barges, craft, or boats which shall be laid at or made fast to the outer side of the outermost ship or vessel lying in any of such tiers, so that a channel of not less than 300 feet, in manner directed by the bye-law, shall be kept a clear, free, and unobstructed passage.

That penalties be imposed upon the masters, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft, or boat, which shall in any manner *wilfully* obstruct or impede the navigation. And, provided accommodation can be found for the increasing coal and coasting trade, as it is impossible, from strong winds, and a variety of other causes, to give sufficient room for the delivery of coals, to keep at all times the space of 300 feet navigation, and therefore the harbour-masters consider it would be better for them to keep a free passage for the purposes of navigation, to the best of their judgment.

3. That a penalty be imposed on the owner, master, pilot, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft, or boat, which shall lie or moor at or in any of the in-shore passages or ferries, so as to obstruct the transit thereof.

That a penalty be imposed on the owner, master, pilot, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat, which shall wilfully lay or moor at or in any of the in-shore passages or ferries, so as to obstruct the transit thereof. Mr. Cousens thinks, as in the first clause, that the present Act of Parliament is sufficiently strong for every purpose contemplated by the Legislature.

4. That power be granted to the harbour-masters to order to be removed to such place as they may direct, and if necessary to cause to be removed, any ship,

The 9th section of 10 Geo. 4, repeals the notice of twelve hours to be given to the master or owner of such

ship, vessel, steam-boat, craft, lighter, barge, or boat lying in the port of London between Blackwall and London Bridge, forthwith, upon verbal notice; the expense of removal to be paid by the masters or owners, unless immediately complied with.

5. That penalties be imposed upon all and every person who shall obstruct the harbour-masters in the execution of their duty, and use abusive and offensive language to them, and who shall refuse to obey their orders.

6. That the harbour-masters shall have the power to call in aid the officers of Thames police, for the purpose of enforcing, when necessary, the orders or directions they may give in the execution of their duty.

7. That moorings, with bridles, be laid down at such places, and in such a manner, between the Red House, Deptford, on the one side of the river, and the King's Arms, Limehouse, on the other, and the London Bridge, as shall be deemed necessary and fit for the accommodation of shipping in the port of London: the stations, numbers of ships, &c. to be permitted to moor or make fast thereat to be limited and defined, regard being had to the free and unobstructed passage of not less than 300 feet in width; and that penalties be imposed upon any master, owner, pilot, or other person in charge of any ship, vessel, steam-boat, craft, lighter, barge, or boat, who shall moor or make fast at any other place than at the mooring-chains so laid down, without a special permission in writing from the senior harbour-master.

8. That the aforesaid passage or channel of not less than 300 feet between Limehouse and London Bridge, be buoyed off at convenient distances, and in such part of the river as shall be deepest, and where the current or stream runs the strongest.

9. That not more than 130 vessels, coal-laden, be permitted to lie or moor in the stream, or at any of the tiers above the entrance to the West India Docks, in Limehouse Reach, at one and the same time, for the purpose of discharging, or, after having discharged, to take in their ballast.

That when the term "ship" or "vessel" shall be used, the same shall be construed or extend to vessels and boats propelled by steam.

10. A provision to be inserted in the bill, for regulating the speed of steam-boats between Cuckold's Point and London Bridge.

11. Also a provision to be inserted in the Bill, for removing the shoals and banks of mud, silt, and other stuff, not being fit for the purposes of ballast, and to deepen the bed of the river, and preserve a proper depth of channel in the river Thames between Blackwall and London Bridge.

such ship, &c. and, in lieu thereof, such reasonable time substituted.

The harbour-masters beg leave strongly to recommend both the fifth and sixth clauses.

The harbour-masters are of opinion that there are sufficient mooring-chains at Blackwall, Deptford, and Limehouse, and that no addition is required. The water on the King's Arms side of the river is too shoal to admit moorings to be laid down there; and that the public may be allowed to make use of their moorings at the Red House, and the King's moorings at Deptford.

Captain Fisher is of opinion that the last part of this clause requires the addition of the words "unless required for His Majesty's service."

The harbour-masters are of opinion that placing buoys in the river Thames, to mark off the passage, would be a great obstruction to the navigation, and a constant source of damage and expense, it being notorious that all buoys in the river are a nuisance.

The harbour-masters are of opinion that a regulation like this would injure and destroy the trade of the port of London.

This clause the harbour-masters recommend to the wisdom of the Legislature.

The harbour-masters are of opinion that, with the present machinery, no banks or shoals ought to exist in the river Thames.

(signed) *William Mayott.*
John Fisher.
William Cousens.

To the Worshipful Thames Navigation and Port of London Committee.

204. REPORT of Harbour-masters in relation to amending the Bye-laws, under the powers of the existing Act of Parliament.

Gentlemen, Harbour-masters' Office, St. Katharine's, 28 January 1833.

We beg leave to report to your worshipful committee, that we have taken into full consideration the bye-laws, as directed in your resolution of the 11th instant, which we herewith forward: at the same time, we consider that every accommodation has been given to the St. Katharine's Dock Company, consistent with the interests of the coal, coasting, and other trades resorting to the port of London.

We are, Gentlemen, your obedient and faithful servants,
Charles Rowland. *John Fisher.*
William Mayott. *William Cousens.*

To the Worshipful Thames Navigation and Port of London Committee.

No. 1. Proceedings of the Common Council.

205. At the Monthly Meeting of Harbour-masters, held at the Office, Greenwich, this 21st day of January 1833; present, Captain Fisher, Mr. Cousens, Mr. Rowland, and Lieutenant Mayott.

A resolution from the worshipful Thames navigation and port of London committee, dated the 11th instant, was laid before this meeting, and read. The harbour-masters (in reference to the alteration in the Act of Parliament) beg leave to refer the committee to their report of the 27th December last, as they have nothing further to suggest on that subject.

With respect to the bye-laws, the harbour-masters beg leave to recommend the following alterations and amendments:

1st Clause to remain, with the addition of the words "mooring chain," immediately after the words "harbour service."

2d Clause to remain.

3d Clause. And be it further ordained and established by the authority aforesaid, that the said principal or superintending harbour-master for the time being shall be furnished and provided (by and at the expense of the said committee to carry into execution the said Acts of Parliament) with a boat and oars, sails, warps, and every other requisite for the use thereof, and four watermen and a coxswain to row and navigate the same; and each and every of the harbour-masters already appointed or to be appointed to be furnished in like manner with a boat and requisites for the use thereof, and two men to row and navigate the same.

Captain Fisher is of opinion that a coxwain for his boat may be dispensed with.

4th Clause. The alteration in the 3d clause will render this unnecessary.

5th Clause to remain.

6th Clause to remain.

7th Clause to remain; but, in addition, that the office for the lower station be established at Greenwich, with the like regulations.

Messrs. Cousens and Mayott are further of opinion, that a clerk should be attached to the said office.

Captain Fisher and Mr. Rowland to the contrary.

8th Clause to remain, with the exception of the omission of that part which refers to the boats; for which see 3d clause.

9th Clause to remain.

10th Clause to remain.

11th Clause to remain, with the addition of the words "subject to the knowledge of the superintending harbour-master."

12th Clause to remain.

13th Clause to remain, with the exception of the penalty being 40 *s.* instead of 5 *l.*

Captain Fisher is of opinion that there is no necessity for altering the penalty.

14th Clause to remain.

15th Clause to remain, and with the addition of the words "mooring chains."

16th Clause to remain.

Messrs. Cousens and Mayott are of opinion that the monthly reports to the committee should be signed by a majority of harbour-masters.

Captain Fisher and Mr. Rowland are of opinion, that, as the subject has been so often decided by the committee, it should not be disturbed.

17th Clause to remain.

18th Clause to remain.

19th Clause to remain.

20th Clause to remain.

21st Clause to remain.

22d Clause. And be it further ordained and established by the authority aforesaid, that the said harbour-masters, or any or either of them, or any clerk, officer, waterman or other person employed by or under the direction of the said committee, shall not, under any pretence, accept or receive, from any person or persons whatsoever, any gratuity, fee or reward, directly or indirectly, for anything done or omitted to be done by him, them, or any of them in the discharge of their several and respective duties or employment; nor shall they, or any or either of them, give any preference or show any favour or partiality in the mooring or anchoring of any ship, vessel or steam-boat, or in any other matter or thing regarding their respective duties, but shall direct the mooring or anchoring thereof in such manner as her size, draft of water, the trade wherein she is employed, and the competency of the moorings in his or their fair and impartial judgment shall require, due care and attention being always had by the respective harbour-masters to preserve a free and unobstructed passage for the navigating of vessels between London Bridge and Bugsby's Hole.

The remaining part of this clause to be omitted.

23d Clause. And for the purpose of preserving a free and unobstructed passage through the Pool, be it ordained and established, by the authority aforesaid, that the harbour-masters are hereby authorized and ordered to detain at Greenwich and Blackwall all vessels coal-laden from entering the Pools, whenever the harbour-master whose turn of duty it shall be on the lower station shall deem necessary, for preserving and maintaining a free and unobstructed passage through the Pools; and whenever it shall appear to the said harbour-

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master on duty as aforesaid that no more vessels coal-laden should proceed to the Pools, then the said harbour-master shall cause a flag, half-red half-white, to be hoisted on a flag-staff provided for that purpose, at or near the said office at Greenwich. And be it further ordained and established, by the authority aforesaid, that in case any master, pilot, waterman, or other person having charge or command of any ship or vessel, coal-laden or in part coal-laden, shall proceed higher up the river than Deptford after the said flag is hoisted, or shall remove from the station at Greenwich or Blackwall without permission first obtained in writing from one of the said harbour-masters, he the said master, pilot, waterman, or other person having charge or command of such ship or vessel shall, for every such offence, forfeit and pay the sum of 5*l.*; and the harbour-masters are hereby authorized and directed to cause to be removed any such ship or vessel out of the said Pools, to any place or such places as he in his discretion may think fit, and the expenses of such removal shall be paid by the master or owner of such ship or vessel.

Mr. Cousens is of opinion that the number of vessels to moor at the different tiers should be stated, and also those moored at their own anchors.

24th Clause. And be it further enacted, that in case the owner, master, pilot, servant, or other person having the charge or command of any ship or other vessel or steam-boat (except those of the corporation of the Trinity House), coming into, lying, or being in the said river Thames, between London Bridge and Bugsby's Hole (except as hereinafter excepted), shall refuse or neglect to moor, unmoor, move or remove the same, according to the direction and notice of any harbour-master to him or them given in writing, or left with some person or persons on board the said ship, vessel, or steam-boat, within such reasonable time after the giving or leaving such direction and notice as shall be mentioned in such direction and notice, then, and in every such case, a sum not exceeding 5*l.* for every hour after the time expressed in such direction and notice as aforesaid, during which such refusal or neglect to moor, unmoor, move or remove such ship, vessel, or steam-boat shall be made and continued, shall be paid by the master, owner, or other person having the charge or command of such ship, vessel, or steam-boat, and may be recovered by the said mayor and commonalty and citizens of the owner and master of such ship, vessel or steam-boat, in case of nonpayment on demand, by such ways and means as penalties and forfeitures are recovered by virtue of the said first recited Act: and also, that in case any such neglect or refusal to moor, unmoor, move or remove such ship, vessel or steam-boat shall be made as aforesaid, it shall be lawful for any harbour-master and his assistants, and such proper persons as he may direct, if he shall think proper (but not otherwise) to moor, unmoor, move or remove such ship, vessel or steam-boat, and the charges and expenses thereof respectively shall be paid, together with and in the same manner as the forfeiture or penalty to be paid for such neglect or default as aforesaid.

25th and 26th Clauses to be done away with, and the following substituted in lieu thereof. That, in order to preserve a free and unobstructed transit for craft through the in-shore passages and ferries, be it further ordained and established, by the authority aforesaid, that in case any owner, master, pilot, waterman, or other person being in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat, shall wilfully lay at or moor in any of the in-shore passages or ferries between London Bridge and Bugsby's Hole, so as to obstruct the transit thereof, shall for every such offence forfeit and pay the sum of

And it shall be lawful for any harbour-master and his assistants, and such persons as he may direct, to moor, unmoor, and remove such ship, vessel, steam-boat, barge, lighter, craft or boat, and the charges and expenses thereof respectively shall be paid by the owner or master of such ship, vessel, steam-boat, barge, lighter, craft or boat.

27th Clause to remain.

28th Clause to remain.

29th Clause to remain.

30th Clause to remain.

31st Clause to remain, with the exception, that the words "such reasonable time" be substituted, instead of those "within twelve hours."

32d Clause to remain.

33d Clause to remain.

34th Clause to remain.

35th Clause to remain.

36th Clause to be abolished.

37th Clause. And be it further ordained and established, by the authority aforesaid, that it shall not be lawful for any ship, vessel or steam-boat, to lie in any tier laden in the whole or in part with any timber or combustible stores, to come higher up the said river and port than Limehouse Hole aforesaid, for the purpose of being unladen or discharged (except by the direction or permission of one of the harbour-masters), and every person who shall unload, or cause to be unloaded, any timber or combustible stores out of any such ship, vessel, or steam-boat higher up the said river and port than Limehouse Hole (except as aforesaid), shall forfeit and pay for every such offence the sum of 5*l.*

38th Clause to remain.

39th Clause to remain.

Charles Rowland.
William Mayott.
John Fisher.
William Cousens.

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206. LETTER from Jacob Herbert, Esq., Secretary to the Trinity House, relative to the removal of Shoals:

Dear Sir, Trinity House, London, 2 February, 1832.

I have laid before the elder brethren your letter of the 30th ult., adverting to the complaints which have been made to the Thames navigation and port of London committee of several shoals having accumulated in the river between London Bridge and Blackwall, and requesting, by direction of the committee, to be informed whether this board, upon the shoals being pointed out, would direct the ballast lighters to work upon them, with a view to their removal, for the greater convenience of the navigation of the river.

And I am directed to acquaint you, for the information of the committee, that this corporation is ready to direct their ballast lighters to work in any situations wherein they are likely to be most beneficially employed with a view to the improvement of the navigation of the river Thames, provided that the soil raised by the lighters in those situations shall prove fit for the ballasting of ships and vessels.

I am, dear Sir, your very faithful servant,

To Henry Woodthorpe, Esq., Town Clerk. *J. Herbert.*

207. LETTER from Mr. William Willins:

Gentlemen, 7, Augusta-place, Clapham-road, 31 January 1833.

I beg most respectfully to address you on the subject which occupied so much of your attention on the 29th, viz. the obstruction caused by the colliers in the Lower Pool.

I will, in the first place, request the favour of your attention to Limehouse Reach. The tide, both flood and ebb, sets on the N.E. side of the reach; consequently the channel is on this side: in this channel, in the best water, are moored timber ships, old ships for sale, and light ships laid up. All those vessels may with safety be laid on the mud close over to the west shore, and keep the channel clear. Duke Shore may also be kept clear.

I now beg your attention to the obstruction complained of.

The prevailing winds in England are from the W. and S.W. A ship coming into the Pool with either of those winds must go about, to clear the vessels lying at Duke Shore and the lower tier in the Pool, and must stand over to the south shore, out of the tide, to get into the present passage, where the ship becomes nearly stationary; others follow, to the amount of 20 or 30; they also are compelled to go about, below this vessel, and remain in the same state, the tide not being strong enough for the ships to fall away clear of each other: when this passage is in this crowded state, a ship of 600 tons, with a valuable cargo from India, drawing nearly 20 feet water, towed by a steam-vessel at the rate of eight miles an hour into this passage, must be fortunate if she escapes without doing or receiving damage.

This will always be the state of the passage if kept on the south side of the river, where there is no tide; if the present tiers were reduced to 12 ships, and permitted to remain on the north side, the obstruction would be lessened, but not removed.

I therefore most respectfully suggest to your honourable committee to form the tiers on the south side of the river, from Globe-stairs to King-stairs, Rotherhithe, for colliers, placing a mark on shore where each tier is to be placed, and the number of ships allowed to lay at each tier. By keeping the N.E. side of Limehouse Reach clear, and Duke Shore clear, and forming the tiers on the south side, ships coming into the Pool with the wind from the westward, will fall away in the best of the tide to their respective tiers without any trouble or obstruction.

I will again suggest the removal of the causeways from King James's-stairs to Wapping Ness, by excavating a canal wide enough to admit a boat at low water, to the bottom of the present stairs; this space, commonly called New-Crane Mud, will again become the most valuable anchorage in time of ice in the river. Six or seven tiers for small colliers might instantly be formed on this mud, which has accumulated from the causeways being permitted, and disuse of the anchorage.

The coal-trade requires 250 ships placed in a working situation. By extending the tiers a little westward of King's-stairs, 20 tiers may be formed on the Rotherhithe side, to average 10 ships in each tier; New-Crane Mud will afford ample room for the remaining 50. In a severe winter, in time of ice, these 50 ships may be worked, when you cannot work those moored in any other part of the river.

I am, Gentlemen, very respectfully, your obedient servant,

W. Willins.

To the Chairman and Gentlemen of the Navigation Committee.

208. Resolved, that the letter of Mr. William Willins, relative to a proposed plan for mooring vessels in the river Thames, &c., be referred to the harbour-masters, to consider and report their opinion thereon.

209. The town-clerk reported that, in pursuance of the order of the last committee, the correspondence and memorandums relative to the harbour-service had been printed, and six copies thereof sent to each of the following parties:

Mr. Robert Smith, for wharfingers, London side.
Mr. Sheriff Humphery, for wharfingers, Southwark side.
Mr. Gillespy, for coal merchants and factors.
Mr. Bessell, Captain Brocklebank, } for Steam Navigation Company.
Mr. Drinkald, watermen and lightermen.

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As also to the London and St. Katharine Dock Companies, and to the Grand Surrey Canal Company, for consideration; and for them to furnish the committee with remarks, observations, and information thereon, at their earliest convenience.

210. The town-clerk also reported, that he had informed the respective parties that they might inspect the short-hand writer's notes of the minutes of evidence before this committee on the 29th ultimo, any day after Wednesday next.

211. Captain Fisher attending, laid before the sub-committee a letter he had received from Mr. Cousens, arising from the correspondence of Sir John Hall, relative to the state of the Pool on the 9th December last, and the order of this sub-committee of the 29th ult. to Mr. Cousens thereon, which letter was read as follows:

212. Sir, Harbour-masters' Office, Greenwich, 30 January 1833.

Having been directed by the worshipful Thames navigation and port of London committee to address to you a reply to a postscript to Sir John Hall's letter, addressed to you, of the 10th of December last, in which that gentleman states that during one hour he was near and about the Pool, and never saw any harbour-master on duty, I have to state that, so far as the observation applies to me, it must have arisen from my having been in a hired boat, with only one waterman (the other having been too ill to be on duty).

You are aware that, as my residence is at Greenwich, I had to row in the course of that tide upwards of 12 miles.

I beg to add, that the harbour-masters' book will show that I was actively employed on that day in the performance of my duty; to which I have to add, although Sir John did not notice me, I saw him between Union-stairs and St. Katharine's.

Should any further explanation be required for that day, I shall be happy to give it.

For an answer to that part of Sir John Hall's letter in which he complains of the narrow channel left in the Pool, I beg leave to enclose you a statement of the number of vessels at each of the tiers mentioned in the new bye-laws (which I have copied from the register-book, and kept it in the Lower Pool for the information of the committee, should they ever require such), where you will see that at Stone-stairs, where he mentions that the width was only 116 feet, the number of vessels was 19; whilst at Bell-wharf, where the width was 180 feet, 25 vessels had been permitted to remain since the 6th December 1832.

But it not appearing to be entered in any of the books at our office where those 18 vessels you have stated you berthed on that day (6th December 1832) in the Lower Pool, it would have created great confusion had I given them orders, when I saw that you were there giving them directions where to go; I therefore proceeded further down, and stopped the collier Providence from entering the Lower Pool, she not having a written permission on board so to do from the lower station, and which was contrary to your written orders of last year for any collier to come up without.

For the performance of my other duties on the day above-mentioned, I must again refer you to the harbour-masters' order-book, wherein are entered all my orders given, either to the shipping or craft, pilots, masters of colliers, or to the watermen, on the 6th December 1832.

I have the honour to remain, yours, most obediently,

To Captain John Fisher, R.N., Principal Harbour-master, &c. *William Cousens.*

213. Ordered, that the said letter be laid before the grand committee.

214. A Survey, taken on Sunday, 9th December 1832, in the Upper Station, and showing the number of Vessels lying at the Tiers named in the Bye-laws, and at other places in the Lower Pool.

On the South Side.	No.	Found the usual space for navigating off Globe-stairs.	No.	On the North Side.
King-stairs tier - - } mooring chains.	10		1	Chapel Ship.
Prince's-stairs tier - } mooring chains.	11		7	Wapping-dock tier, light vessels.
Elephant-stairs tier - } mooring chains.	10		6	King-Edward tier, light vessels.
Church-stairs tier - } mooring chains.	11		2	New-crane tier, stragglers.
Episcopal Church - } mooring chains.	1			King-James' tier below the stairs.
Hanover-hole tier - -	18		6	Pelican tier, Lond.-dock entrance.
Mill-hole upper tier - -	19			Shadwell tier, Lond.-dk. entrance.
Mill-hole lower tier - -	17			London-dock moorings.
At Surrey-canal moorings, light-vessels - -	5		24	Cole-stairs tier.
			25	Bell-wharf tier.
Ditto, off King and Queen -	2		23	Stone-stairs tier.
Ditto, in the stream - -	1		22	Ratcliff-cross upper.
Off Globe-stairs - - -			19	Ratcliff-cross lower.
			Entrance Regent's Canal.	Botany-bay upper.
Collier detention flag up at Greenwich.				Botany-bay lower.
				Kidney-stairs.
			3	between the tiers this side.
			7	light vessels off Duke's Shore.

William Cousens, on duty.

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Friday, 8 *February* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

215. The proceedings of the sub-committee of the 29th ultimo, and of the 3d instant, respecting the Acts of Parliament for rendering more commodious and for better regulating the port of London, and the bye-laws for regulating and conducting the harbour-service of the said port, were read.

216. Resolved, That the grand committee be specially summoned to meet, from time to time, to proceed in the further consideration of this important subject.

Friday, 15 *February* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

The letters of the town clerk, of the 4th and 11th instant, to the several parties who attended this committee on the 29th day of January last, relative to the harbour-service and bye-laws for regulating the port of London, were read, as follows: viz.

217. To Sir John Hall, secretary to the St. Katharine's Dock Company.
— Simon Cock, Esq. secretary to the London Dock Company.
— Captain Smith, dock-master of the Grand Surrey Canal Company.
— Mr. Bessell, } for the proprietors of steam navigation.
— Mr. Brocklebank, }
— Mr. Robert Smith, for the wharfingers on the London side of the river.
— Mr. Sheriff Humphery, for the wharfingers on the Southwark side.
— Mr. Gillespy, for the coal-merchants and coal-factors.
— Mr. John Drinkald, for the lightermen.

Sir, Guildhall, 4th February, 1833.

I am directed by the Thames navigation and port of London committee to transmit to you the accompanying copies of correspondence, &c. relative to the harbour-service, and the bye-laws for regulating the port of London, for the information of the ———— —— and to request that they will be pleased to consider the same, and furnish the committee with any remarks, observations, or information thereon, at their earliest convenience.

I beg further to inform you, that the short-hand writer's notes of the examination before the committee, on the 29th ultimo, will be ready for inspection, at this office, any day after Wednesday next; and that due notice will be given you of the next meeting of the committee upon the subject.

I am, Sir, your obedient servant,
Henry Woodthorpe.

218. To Sir John Hall, secretary to the St. Katharine Dock Company.
— Captain Maughan, } dock-masters of the London Dock Company.
— Captain Walton, }
— Captain Smith, dock-master of the Grand Surrey Canal Company.
— Mr. Banyon, clerk to the Watermen's Company.
— Mr. R. W. Barchard, chairman of the coal-trade.
— Mr. Drinkald, for the lightermen.
— Mr. Blenkarne, } for the wharfingers.
— Mr. R. Smith, }

Sir, Guildhall, 11 February, 1833.

I am directed by the navigation and port of London committee to inform you that, as they purpose meeting on Friday next, the 15th instant, relative to the harbour-service and the bye-laws of the port of London, they will feel obliged by your inspecting the evidence given by you on the 29th ultimo, previous to that day, with a view to your correcting any error that may have occurred in the short-hand writer's notes.

I am, Sir, your obedient servant,
Henry Woodthorpe.

219. The committee were attended by Robert Humphrey Marten, Esq., Mr. Shaw, Mr. Barker, and Captain Walton, for and on behalf of the Commercial Dock Company, who were informed that the committee met this day for the purpose of hearing the evidence already given before this committee, but that they might inspect the same at the town clerk's office, and they were furnished with a copy of the printed correspondence.

220. The whole of the evidence given before the sub-committee on the 29th ultimo, as contained in the notes taken by the short-hand writer, was read.

221. A letter from Mr. R. W. Barchard, chairman of the committee of the coal-trade, transmitting a plan for the mooring of 246 colliers in the river, was read, as follows:

222. Sir,

I am desired by the deputation of the coal-trade, who were favoured by the conference with the navigation and port of London committee, to forward herewith for their information

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mation a plan from actual survey of the proposed position of the tiers for colliers in the river, by which it will be seen that ample space is allowed for mooring 246 ships, at the same time reserving a clear space of 300 feet for ships passing up and down, and not filling the tiers so full as allowed by the bye-laws; nearly all of which has been achieved by a new arrangement of the tiers, and by making use of some parts of the river now occupied by light ships laying up, and by the Episcopal chapel; but, by so doing, some alteration of the moorings becomes necessary.

First, to remove the ballast-barge road from Ratcliff-cross. In the plan now laid down, it will be seen that all the space above the London Dock lower entrance is given up, and the colliers proposed to be moved to the south side; it will therefore become necessary to remove the Episcopal chapel from its present position on the south side to the north, between the two entrances to the London Docks.

To carry these arrangements into effect, power must be obtained to remove shoals, particularly one on the south side, by Hanover-hole, and also another a little higher up. We also suggest marking in a conspicuous place on the shore the precise situation of each tier; and that the harbour-master himself, or some efficient officer, should personally superintend the mooring of colliers as they arrive in the Pool. It would be advisable to lay down a mooring-chain at Cole-stairs, directly below the London Dock lower buoy, thereby keeping the first tier in a fixed position on the north side. Chains would also be desirable at Botany-bay and Kidney-stairs, as it is not considered good holding ground. We hope, by this plan, ample space will be given to the different dock entrances, and that no inconvenience will arise to any other persons.

Any further information or assistance within our power, either by explanation or personal attendance, will be most readily afforded at all times.

I have the honour to remain, Sir, your most obedient servant,
R. W. Barchard, Chairman.

223. The plan above referred to was inspected.

224. Resolved, that the letter and plan of the coal trade, relative to the mooring of colliers in the river, be referred to the harbour-masters, to consider and report their opinion thereon to this committee forthwith.

225. A letter from the Shipowners' Society, on the subject of the proposed alterations in the bye-laws, was read, as follows:

226. Sir, General Shipowners' Society, London, 72, Cornhill, 12 Feb. 1833.

It having been intimated to the committee of this society that certain propositions have been submitted to the consideration of the port of London committee, for regulating and amending the bye-laws relating to the harbour-service, in which the interests of the owners of ships frequenting the port may be materially affected, I am directed to express the hope that the committee of the port of London will not come to any definite conclusion thereon, without conferring on this committee the favour of communicating the nature and extent of the regulations and amendments suggested, and affording them the opportunity to offer, on behalf of the shipping interest, such observations as may appear to them expedient to be submitted to the notice of your committee.

I have the honour to be, Sir, your obedient servant,

Edward Tickner, Esq. *Nathaniel W. Symonds*, Chairman.
Chairman to the London Port Committee.

227. A Report from the Harbour-masters, on Mr. Willins's Letters, was read, as follows:

228. To the Worshipful Thames Navigation and Port of London Committee.

At a Meeting of Harbour-masters, held at the Office, St. Katharine's, this 12th day of February 1833; present, Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieutenant William Mayott.

A letter from Henry Woodthorpe, Esq., enclosing the copy of two letters (received from Mr. W. Willins), dated 24th December 1832, and the 31st ultimo, were laid before this meeting and read.

Resolved, in reply thereto, that it be represented to the worshipful Thames navigation and port of London committee, that the proposed place for laying vessels on the west shore in Limehouse Reach is quite dry long before low water, and the vessels in the timber and Baltic trades, which are of a large size and great draft of water, would receive injury by so laying, and not be able to discharge their cargoes; should they be kept afloat (which is highly necessary) they would cause obstruction to the navigation, by laying too far out in the stream.

If vessels were prevented from laying at Duke's Shore (which is for the purpose of taking in ballast, or waiting tide), there would be much inconvenience and delay to loaded ships getting into the collier tiers.

The space from the chapel ship to the platform at Rotherhithe are regular moored tiers laid down, and used by vessels in the Baltic, corn, Irish, iron, and the larger size vessels in the coasting trade, on the removal of which, the parties concerned in those trades would be seriously injured; and their interests are entitled to the protection of the committee: and placing 20 tiers in the space proposed would obstruct the entrances to the Surrey Canal, Bull-head Dock, King-and-Queen Granary, Mestairs Dock and Hawk's Dock.

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Altering the channel for vessels to the north shore of the river would be attended with much inconvenience and damage to vessels passing up and down the Pools, as the prevailing winds are from the southward and westward, which would make it a lee-shore; also it appears, if these plans are adopted, by placing vessels on the west side of Limehouse Reach, and on the south side of the Pools up to St. Katharine's Dock, vessels navigating through that part of the river would create obstruction to the entrances of the West India Docks at Limehouse, Regent's Canal and the London Docks, and would destroy the privilege of the spaces in the river, granted to them by Act of Parliament; also it would be placing vessels in the deep-water channel, and throwing the navigation into shallower water.

In respect to the removal of the causeways, from King James's-stairs to Wapping Ness, and making canals to admit a boat at low water up to the stairs, the harbour-masters consider that it would be attended with great expense in cutting and in keeping the mud clear.

With respect to laying loaded vessels in the mud tiers and on the ground, we refer your committee to the following observations, published by Sir John Hall, secretary to the St. Katharine's Dock Company, dated January 1833, page 4: "Vessels unloading or loading at places which ebb dry generally sustain injury, and are subject to extraordinary wear and tear." And the harbour-masters fully concur in that opinion; and they cannot take upon themselves the responsibility in giving such orders, as all persons conversant with shipping must be fully aware of the risks and danger attending it; in addition to which there is no access to the ships, nor can they but at certain periods discharge their cargoes.

On the whole, from our experience and impartial judgment, we beg to assure the committee that we cannot point out any better method than the present of placing and mooring vessels in the river Thames, consistent with the general interests of the public, unless by deepening the water and removing the mud and shoals.

(signed) *Charles Rowland.* *John Fisher.*
William Mayott. *William Cousens.*

Friday, 22 February 1833.

THAMES NAVIGATION AND PORT OF LONDON SUB-COMMITTEE.

Edward Tickner, Esq. in the Chair.

[*Copy from Mr. Gurney's short-hand Notes.*]

229. Captain Fisher, principal harbour-master, was called in.

230. A letter from the harbour-masters' office, with a report from the harbour-masters on considering of the plan for mooring 246 colliers in the river, delivered in to this committee by the coal-trade, were read as follows:

231. Sir, Harbour-masters' Office, St. Katharine's, 22 February 1833.

I am directed by the harbour-masters of the port of London to transmit to you the enclosed communication, in answer to the resolution of the worshipful Thames navigation committee of the 14th instant, with a request that you will be pleased to lay the same before the said committee at their next meeting.

I am, Sir, your obedient humble servant,
To Henry Woodthorpe, Esq. *Malcolm Dunnett*, jun. Clerk.

232. At a Meeting of Harbour-masters, held at the Office, St. Katharine's, this 20th day of February 1833; present, Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland and Lieutenant William Mayott.

A resolution from the worshipful Thames navigation committee, with a plan and letter from Mr. Barchard, of the coal-market, was laid before this meeting, and read.

Resolved, in reply thereto, that, in respect to the Trinity ballast-lighter road, the harbour-masters have never seen any inconvenience arise to the colliers laying in the tiers near that part of the river, and which is found convenient for the supply of ballast to the light colliers. This lighter road belongs to the Trinity-house, and is under their direction, and in our opinion a more convenient place cannot be found.

As to the removal of the chapel ship from its present position, and placing a tier of colliers there, the harbour-masters can see no objection, provided the water is deepened.

In reference to shoals, the harbour-masters are of opinion, as previously reported to your committee, that, with the present machinery, no banks or shoals ought to exist in the river Thames.

In placing marks for colliers on the shore, the harbour-masters have to state, that the experiment was tried in the year 1826, and found of no utility, as the shifting of the tiers preserves and increases the depth of water.

In placing moorings for colliers, the harbour-masters are of opinion that it would be found inconvenient, and attended with great expense, in laying them down and keeping them in repair.

With respect to placing two tiers of colliers below Kidney-stairs, we find it impracticable, from the shallowness of the water, hardness of the ground, narrowness of the river, and the race of the tide there, and would tend to obstruct the entrance to the Regent's Canal;

Canal; and, as reported before to your committee, would be found to be the only convenient part of the river for placing light vessels to take in their ballast, and stop tide.

The space between the Regent's Canal and Shadwell-dock stairs, we find by experience that there is good room for five tiers, and not enough for six, to allow sufficient space between the tiers for the accommodation of craft, and vessels hauling in and out.

The four tiers laid down on the plan, in the space from the Tunnel to the platform at Rotherhithe, occupy the position of regular moored tiers, as reported before to your committee, and used by vessels in the Baltic, corn, Irish, iron, and the larger size vessels in the coasting trade, on the removal of which the parties concerned in those trades would be seriously injured; and their interests are entitled to the protection of the committee.

As long as the colliers are compelled to discharge their cargoes in the Pools, the harbour-masters have again to repeat to your committee, that there is no better plan than the present for placing and mooring colliers, as their attention (consistent with their other duties) is devoted, nearly the whole of the flood-tide, to the regulation of the collier tiers.

(signed) *Charles Rowland.* *John Fisher.*
William Mayott. *William Cousens.*

233. To Captain *Fisher*. Will the coal-trade suffer any inconvenience from there being only the number of ships that at present come into the river, others lying lower down, and coming up as those in the Pool are unloaded?—I consider that there ought to be more than 150 sail in the Pools, for there ought to be colliers ready to unload in the tiers after the others are discharged.

234. Do you think there need be a hundred more?—I should think hardly so many, but there are a great number of colliers which do not require a weigher, but discharge immediately.

235. Though there are but 150 weighers, still the trade requires more than 150 ships to be in the Pool?—I should think so: there ought to be at least 200; but to keep 300 feet clear, we cannot put more than 150 colliers in the Pool.

236. When you state, in your report, that between the Regent's Canal and Shadwell Dock there is room for five tiers, how many vessels in a tier do you mean?—Generally 18, but not so many in some places.

237. At 18 in the tier, that would make 90; do you think there will be room for 70?—I think there will be room for 70.

238. Are you prepared to put in any plan that will meet the wishes of the coal-owners, and be preferable to the plan they have proposed?—Not at present; but we can prepare a plan. I do not think their application can be carried into effect without injuring other interests.

239. Is it your opinion that the plan submitted by the coal-owners for mooring colliers is a practicable one?—Not at all: one tier they have put right over the Tunnel.

240. Would the surveyor of the port of London, and the harbour-masters, find any difficulty in making a report to the committee of the actual number of ships on both sides of the river that could be moored, keeping up the 300 feet?—Not the least.

241. Are you in a condition to point out any plan by which a greater number of coal ships can be admitted?—Not in the Pool.

242. Are you in a condition to submit to this committee any plan by which increased accommodation can be afforded to the coal trade, without disadvantages to the other branches of commerce?—Certainly not, without removing some of the vessels out of the Pool to Blackwall and Greenwich. One thing prevents our keeping the 300 feet: there is a large class of vessels in the coal trade which draw from 17 to 20 feet water; we are bound to put them in deep water, and then they must come in the way of this 300 feet.

243. Does it not occasionally occur that it is quite impossible to prevent a larger number of ships, from the wants of the port, being in the river than at other times, with regard particularly to the coal ships?—I have stated to this committee, that the pilots have declared to me that the obstructions from Greenwich to Greenhithe have been greater than in the Lower Pool; and it is the opinion of my colleagues and myself that there cannot be a better plan than the present of mooring colliers.

244. Does not it appear to you that in consequence of the size of ships now used, it is impossible to have 300 feet kept clear always?—Yes; and I do not see why the coal trade should not feel the effect of that as well as the large ships; why some of their vessels should not discharge at Deptford, where there is deep water.

245. The plan before you shows accommodation for 250 colliers?—It does.

246. Can you point out any spot on the river where an additional number of colliers can be accommodated, that in your judgment would be suitable, and useful to the coal trade?—Not so high up the river; we could at Deptford or Blackwall, undoubtedly.

247. Resolved, That the report of the harbour-masters be referred back for them to report specifically upon all the points contained in the plan proposed by the coal trade.

248. Resolved, That it be referred to the harbour-masters, with the surveyor of the port of London, to report the extent of accommodation which can be afforded to vessels in the said port between Blackwall and London Bridge, so that a free passage-way of 300 feet be at all times kept open; specifying the numbers and situations they will propose for the tiers, the greatest number of vessels to be allowed at each tier, the depth of water at the respective tiers, the nature of the anchorage, the situations and extent of any shoals that may exist; and also, whether any, and what, increased accommodation might be afford by the removal of such shoals.

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249. The town-clerk reported that a letter had been sent to the secretary of the ship-owners, giving them notice of the meeting on this day, and a similar letter to gentlemen on behalf of the wharfingers on the London side of the river, and on the Southwark side of the river.

250. Mr. Drinkald and Mr. Hay, lightermen, and Mr. Banyon, clerk to the Watermen's Company, attended the committee.

251. Octavius Wigram, Esq. and F. Young, Esq. M.P., attended as a deputation on behalf of the Shipowners' Society, and were informed by the chairman that the committee felt it desirable to ascertain the best mode of obtaining, and strictly preserving, a passage sufficiently wide for vessels of such size as can come up the river, giving every accommodation which can be given to every trade, and that the committee were particularly desirous of ascertaining all the situations, between Blackwall and London Bridge, in which vessels can lie in tiers.

252. Mr. *Young*. I am not prepared to give an explicit opinion on the subject of the documents which have been forwarded to the shipowners, not expecting to be called on to give an opinion to-day. In the principle which is stated every one must accord with the committee, that there must be a sufficient space kept clear for navigation; but it appears to be entirely a question of degree, and the extent to which the committee might propose to carry that which we were not previously acquainted with, and I am not prepared to express any very decided opinion upon it. I am scarcely aware whether the committee are disposed to concur in that which I have heard put forward, that the river was merely the King's highway, a place of transit. I think it is, partly, a vehicle for the transit of ships and vessels; but, partly also, the place for carrying on those details of commerce which have been from all time carried on; and that it is the judicious combination of those two particulars which is the thing to be desired. In addition to my connexion with the ship-owners, for whom I attend with Mr. Wigram, I have a special duty to perform, as being honoured with the representation of the port of England which sends to London the greatest number of the coal-ships. On their behalf, in general terms, I can take upon myself to state their readiness cheerfully to abide by any determination the committee may come to, that appears to give the minimum of space which they think essentially requisite for the proper navigation of the Thames, even though at some inconvenience to them. I hope the committee will, and I feel perfectly satisfied that the committee will, consider that there is a strong claim on the part of the colliers that it shall not be viewed merely as a transit for the passage of ships. I say this, without any intentional derogation from the importance to be attached to the St. Katharine's Dock Company; but I cannot help saying, that I think a claim coming from that quarter is to be viewed with a great deal of suspicion. They have chosen, for purposes not of public importance, but for the promotion of their private interests, to place a dock at the very extremity of the navigable part of the river; and then they come to desire that free ingress and egress may be allowed to that part where they have planted that establishment. With respect to the specific space, I understand that we are to consider that 100 yards is to be preserved clear.

253. *Chairman*. The view of the committee is that which you have expressed, that the river is to be used for both objects, that of passage and the purposes of commerce as they are carried on in the Thames, and they will be glad to know the exact space for passing up and down that will be absolutely necessary. They are not anxious to ordain more than is absolutely requisite. The committee will be happy to hear your opinion of the space actually necessary?—Mr. *Young*. Not having thoroughly understood the object of the present meeting, I came rather to hear than to express any sentiments; and I fear I should compromise the interests of others by stating an opinion: but I will obtain the opinion of those with whom I am acting, and inform the committee on a future day.

254. Mr. *Taylor*. May I beg to ask whether the gentlemen have, on the part of the ship-owners, any particular complaint to make of the state of the river, and any inconvenience their commercial pursuits suffer which they think ought to be remedied?—Mr. *Young*. No; we are not charged with the task of making any such representations to the committee; we have not specifically addressed our attention to that point.

255. Mr. *Taylor*. If there had been crying evils existing in the state of the port of London, would you not as a committee have been in possession of them?—Mr. *Young*. I should think so, certainly.

256. Mr. *Taylor*. You are not deputed to make any complaint of that nature to the committee?—Mr. *Young*. No, we are not.

257. *Chairman*. Not knowing the course the committee were about to pursue, you are not come prepared to speak so distinctly upon the points to which the committee are directing their attention, but you say you will be happy to attend on another day?—Mr. *Young*. That is precisely my feeling. I would beg to ask whether we are at liberty to direct our attention to any other points brought forward in the papers which have been printed?

258. *Chairman*. The committee will be happy to hear any representations the ship-owners may make. The committee will be prepared to hear suggestions and representations from any persons who feel interested in the trade of the port of London.

259. Mr. *Taylor*. Perhaps Mr. Young is not aware that the coal importers have been before this committee, and have suggested a plan.—Mr. *Young*. I have merely heard that they have been before this committee.

260. Mr. *Taylor*. I would beg to ask Mr. Young, whether he feels that he can communicate with Mr. Barchard and the other gentlemen who have been before this committee?—Mr. *Young*. Certainly; I shall feel pleasure in doing so. I have communicated with the

gentlemen

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gentlemen of the town which I have the honour to represent; the answer that I have received is, that they shall not wish to progress by any injury to other trades, but that they shall view with jealousy their removal from the situations they have occupied in the Thames into any docks or less eligible situations. I shall never become an advocate of any particular interest in opposition to my own convictions. I shall be happy in giving any assistance in my power to the object the committee have in view.

[Mr. Wigram and Mr. Young withdrew.

261. The committee were attended by Mr. Robert Smith, Mr. Blenkarne, and Mr. Barber, as a deputation on behalf of the wharfingers on the City side; and by Mr. Mark Brown, Mr. Silva, Mr. W. Brown, Mr. Scovell and Mr. Burgess, as a deputation of the wharfingers on the Surrey side.

262. *Chairman.* Gentlemen, the committee has adopted for itself a course of proceeding in this inquiry, which I will state, that you may give your opinion in conformity to that course; namely, to ascertain, from the best sources of information, the best mode of maintaining a clear passage up the river Thames from Blackwall to London Bridge. The committee does not determine upon the width that space shall be, whether 200 feet or 300 feet, but as wide as the necessities of the port require, and as is practicable; and to discover all the situations within that space, on either shore, where vessels can be tiered and moored, so as to obtain this free and unobstructed passage. If you will be so good as to give the committee your opinion on those points, or any others which may occur to you, having had time to consider the documents which have been forwarded to you, and having read the evidence given on the previous day, they will be happy to hear you, your interests being connected with those of the port of London, and the committee feeling that your practical knowledge must be very great.—Mr. *R. Smith.* A written statement will be prepared within a short time, to be presented to the committee. I have made out that, under the idea of 300 feet being considered necessary: if I had known that it might, by possibility, be reduced to 250, I should have made my calculations in some respects differently.

263. Mr. *Figgins.* Do you think that the width might be reduced from 300 feet to 250, without injury to the trade of the port?—Mr. *Smith.* I think it might be contracted to 260, but not to less.

264. Mr. *Figgins.* How many ships would that 40 feet, saved out of the channel, contain?—Mr. *R. Smith.* That I am not able to say at the moment.

265. Mr. *Taylor.* May I beg to ask whether the other gentlemen concur in that view, that it might be contracted to 260 feet?—Mr. *Mark Brown.* I think it might.

266. Mr. Alderman *Copeland.* If the water-way were contracted from 300 to 260 feet, would it not necessarily impede vessels of large burthen coming up the river?—Mr. *R. Smith.* I think not, because the vessels will not attempt to come up two abreast.

267. Mr. Alderman *Copeland.* Might they come up two abreast if the 300 feet were preserved?—Mr. *R. Smith.* No.

268. Mr. Alderman *Copeland.* Do many ships of 700 or 800 tons come up so far?—Mr. *R. Smith.* Yes, they have done so since the establishment of the St. Katharine's Docks; several scores have gone down of between 700 and 800 tons.

269. Mr. *Taylor.* Would your limitation of the passage to 260 feet have interfered with the passage of those vessels?—Mr. *R. Smith.* No, certainly not.

270. Mr. *Taylor.* Will the gentlemen present be able to state what would be the effect of lessening the water-way; whether it would not increase the difficulties in the navigation of the port?—Mr. *R. Smith.* I feel desirous that my opinion, as I have stated it in writing, shall be put in: all my calculations are made on the supposition of 300 feet being wanted. —Mr. *Blenkarne.* My impression is, that if 300 feet could be preserved, it should be. I recollect being in a steam-boat of 170 feet, just before high water; vessels were moving; in consequence of the wind we got alongside a collier, and drifted on to Cuckold's Point, before we could get end on in any way. Mr. *R. Smith.* This is the plan I propose; I put 168 colliers in the Lower Pool.

271. Mr. *Figgins.* Do you think that is as many as are requisite for the trade?—Mr. *R. Smith.* I should think so; there are but 150 weighers.

272. Mr. R. Smith delivered in the following statement, which was read:

273. Gentlemen, Galley Quay, 20 February 1833.

Having been requested to give you the result of any observations I may have made, relative to the subject now before you, allow me to offer, for your inspection, a plan of the Lower Pool, showing my method of mooring vessels between Kidney-stairs and the east entrance of the London Docks, on the north side; and from Pageant-stairs, Pitcher's Point, to within 200 feet of the Tunnel, on the south side.

Since the passing of the bye-laws for the better regulation in mooring vessels in the port of London, passed in 1829, 1,800 feet of that portion of the river (occupied by vessels to the number of 82) have been taken for the purposes of making an eastern entrance to the London Docks, and an entrance to the St. Katharine Dock; in consequence of which, and of there being required 300 feet clear channel for the passage of steamers and sailing vessels (see the said bye-laws, pages 29 and 30), there cannot now be moored, with convenience and safety, between Union-stairs and the Eel-chain, on the north side, more than from 100 to 110 ships; and from Church-lane to Battle-bridge, on the south side, from 135 to 145 ships.

That the several tiers at Church-stairs, Elephant-stairs, Prince's-stairs, King's-stairs, Rotherhithe-stairs, Surrey Mill-stairs, Cherry-garden-stairs, Fountain lower and upper tiers,

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East-lane stairs, Bishop's-chain, Mill-lane lower, middle and upper tiers, Horsleydown lower, middle and upper tiers, George-stairs, Old Rose, Pickle-herring lower, middle and upper tiers, and Battle-bridge tier, are principally occupied by vessels from the Baltic, and all ports in the north of Europe, North America and Ireland, which discharge their cargoes principally at the sufferance wharfs.

That the several tiers on the north side, at Union-stairs lower and upper, Hermitage lower, middle and upper tiers, Alderman's lower, middle and upper tiers, Iron-gate tier, Tower lower, middle and upper tiers, Dublin tier, Yarmouth-chain and the Eel-chain tiers, are similarly occupied, with the exception that vessels from France and Holland usually lay here, and all discharging their cargoes at the sufferance wharfs and legal quays.

That carrying over to the south side of the Upper Pool those vessels which are moored on the north side, would, in my opinion, be impracticable.

That if the mud were removed, and the water deepened, from Pelican-stairs to King Edward-stairs, room would be obtained for about 24 colliers.

I am, Gentlemen, your obedient servant,

To the Thames Navigation Committee. *Robert Smith.*

274. Mr. *Blenkarne.* Mr. Barber and myself have declined signing that, not having entered into the details; at the same time we are of opinion that it is perfectly correct.

275. *Chairman.* If Mr. Smith wishes to explain the plan he has put in, the committee will be happy to hear his explanation.—Mr. *Smith.* I am much gratified that an opportunity is afforded me to give my opinion upon the mooring of the vessels in the port of London; because, unquestionably, under the present bye-laws, tiers of vessels have been placed, literally, on dry land. How the committee could have been imposed upon, by placing tiers of vessels which, at less than half-ebb, will be high and dry aground, I cannot conceive; but that has induced the committee to suppose that a certain number of tiers could be used for mooring vessels, and that they can afford space for 250 colliers, which is absolutely impossible. I will proceed to state to the committee in what way I think vessels may be moored, with greater advantage, in the port of London, than they have been for some years past. I take my departure from about Duke's Shore, or Limehouse Hole, or Limehouse-bridge Dock; I am not enabled to show a plan all the way up to London Bridge; I go only as far as the Tunnel, where the colliers have been moored the last 20 or 30 years. I will give in detail that which, I think, will convince the committee that I am not misleading them in any way. My object has been, all through, that 300 feet should be kept open for the purpose of navigation, from London Bridge to Limehouse end, where we get into deep water; though I am quite satisfied, if I had been on the committee at the time that bye-law was made, or had had an opportunity of giving evidence before them, 300 feet would never have been in this bye-law. No practical persons, such as wharfingers, or persons in the coal trade, were before the committee to give an opinion in that matter. From Limehouse Cut to the entrance into the Regent's Canal, is about 450 feet; at the entrance to the Regent's Canal, Trinity barges and ballast lighters are generally moored, for the purpose of putting in ballast into the colliers; I then commence. At Ratcliffe lower tier I show 16 vessels; in the upper tier I show the same number of vessels, 16; at Stone-stairs tier I show the number of 18; at Bell-wharf lower tier the number of 20; at Bell-wharf upper tier I show the number of 20. There has been, on the north side of the river, accommodation for 90 ships, and I have put an additional new tier of 12. Those vessels are all moored by their own anchors. If four or five colliers, after having discharged their cargo, are desirous of getting out of those tiers, in the room of being bridled in, as they are shown by the plan of Sir John Hall, they would, in the first instance, run out a warp to the outermost ship; they would then heave up their anchor, and, while the seamen were heaving up their anchor, those vessels would sheer out into the river; and with a westerly wind they would get down off Peter's Point, and take in their ballast. That is a much greater advantage than can be possibly obtained by any other plan of mooring. If ships are to be bridled in on this plan, with the tightness of the moorings they will be compelled to hold on; they will not, with a ten-feet warp from this bridle at the bow of the vessel, get out from the middle of the tier with a tenth part of the dispatch they do upon the present plan; and by having the dispatch to go down the river again, it gives an opportunity for so many coming up on the flood-tide to take their place. I saw between 300 and 400 ships the last time I was down with the navigation committee; there will be always sufficient to take up their places. At the eastern entrance of the Shadwell Dock there was a tier taken away, to give accommodation to vessels entering; that deprives us of 14 ships; then Pelican-stairs tier has likewise been taken away, on the western entrance of the London Docks; that takes away 10 ships: that has all been done, I think, since the bye-laws passed. Within these two years there was New-crane tier; there is now no tier in that situation, by which we lose 10. There are, therefore, places for 34 vessels, which we have lost. I find 15, and 16, and 17, and 18 feet water upon the outside of the vessels at low water, on all those I have described, at the present time. I have taken the chapel ship, which lay opposite Parson's brewery on the south side of the water, to the north side, where, I think, with a little accommodation, she might be kept for the accommodation of those who wish to attend service there. Then I come to the south side: this is a bold shore. All round here there is plenty of water, 20 feet from land, for any vessel coming into the port of London. At Duke Shore, and in its neighbourhood, there is a mud-bank running out, I suppose, 200 feet or more; therefore there are no vessels whatever on the south side of the water, from Pageant-stairs up to the western entrance of the Surrey Dock. When I took a view of the entrance

entrance to the Surrey Canal last week, I found that this tier was moored, as the secretary very fairly described it, with their sterns completely in the centre of their entrance; but then it was on the ebb-tide, so that when the vessels begin to turn, and the flood-tide comes in with any strength, they go back again: now I have put these vessels 50 feet higher up, so that, with the swing of the cable, they will go 140 feet further than they have done, and then, I think, the gentlemen connected with the Surrey Canal will have nothing to complain of. In the Mill-hole lower tier I have put 18 vessels; in the Mill-hole upper tier 18 vessels; in Hanover-hole tier 18 vessels. I have assumed a new tier off Parson's brewery, which I have named Parson's tier; there 12 vessels may very well lie, leaving 300 feet for navigation. After some consideration, and accurately viewing the place, I have added two ships in every tier; for I am satisfied that there is sufficient room for the number of vessels I have set down. This is a new tier, described in dark colour. In the three tiers I have mentioned before there is just the same circumstance. I had entertained an idea of planting two tiers on the north side of the river, but I found that the mud would not allow the vessels to discharge their cargoes so fast as they might wish. This is the extent of the space where the colliers have been lying the last 20 or 30 years; but, on looking at the plan the coal-owners have presented, I see they have put a tier over the Tunnel, and have taken four more tiers up to the westward. Now, after the great length of time which, consistently with a regard to the general trade of the port of London, accommodation has been afforded to the foreign trade and the Irish vessels, I think the committee will not consent to sacrifice this space; especially when I point out the number of vessels accommodation for which we have been deprived of by the entrance to the docks. They put two tiers of ships below Kidney-stairs, I have put in but one; I would have put in two, if I could have seen it practicable for vessels to get round the point; the harbour-master appears to have an objection to that, which I must leave to him. I have stated, on the north side one new tier, 12 ships; south side, one new tier off Parson's brewery, 12 ships: two additional tiers I set out above for 24 colliers, which I have suggested as an improvement. There is accommodation on the north side for 102 colliers, and on the south side for 66, making a total of 168 colliers lying at their own anchors. There entered the port of London last year 7,528 colliers, which appears to be an increase of very near 500 above the year 1831. When I look at that, and know that all those vessels are disturbing this ground every eight or ten days, dropping their anchors in different situations, and raising them again, and other vessels taking their places, and knowing that it is morally impossible for one captain to drop his anchor in the hole of another, when 7,500 vessels are continually anchoring, and taking them up again, the undermining of the ground here must be very serviceable in keeping the depth of water we have, and nothing but that could do it. If the vessels were moored on the plan of Sir John Hall's bridles the ground would soon fill up, and in the course of two or three years there would be two or three feet less water. It is of the first consequence that those vessels should be moored with their own anchors, not only for the keeping the depth, but for the dispatch of themselves as soon as they are ready to go out. I will start now from Union-stairs, above the western entrance to the London Docks, observing one thing in my way, which is this: here are the buoys laid down for the vessels to go into the London Docks; I am quite satisfied that those buoys may be moved further in-shore, from 50 to 60 feet; it is the only obstruction there in the way of keeping this channel of 300 feet. I recollect not long ago we removed one buoy, because it was very dangerous for boats, and they sanctioned the removal. I submit to the committee that those buoys may be removed 40 or 50 feet further in; they have the opportunity of mooring head and stern if they like it; there is no necessity, therefore, for their ranging right round every tide. In starting from Union-stairs, looking over this, we get into (what I may describe as getting into) the narrows, and I have been obliged to take off a few to preserve the 300 feet. At Union-stairs I keep the same number, and I keep the same number all up the north shore, but I take it from the south, being satisfied that it is better to have a straight line in going up one side than a crooked line on both sides. At Union-stairs tier there may be six ships, Union-stairs upper tier seven ships, Hermitage lower tier seven ships, Hermitage middle tier seven, Upper tier seven, Alderman's lower tier seven, Alderman's middle tier seven, and Alderman's upper tier seven. Before I get up to the St. Katharine's Dock entrance, it becomes my duty to show this committee the number of tiers, and number of vessels that have been removed from that neighbourhood for their entrance, namely, Gill's tier for corn vessels, Lower Barge-road, Upper Barge-road, Lower tier St. Katharine's, upper tier St. Katharine's; that is, upon the most moderate calculation, a loss of 40 vessels to us. In the Hamburgh tier, which is now adopted for steamers, we used to have eight ships, so that since 1828 there have been 48 vessels removed for the entrance into the St. Katharine's Dock. Then I come to Iron-gate tier: six vessels can be moored there; at lower Tower tier six; the middle tier six; and the upper tier six. Here, unfortunately, I come in contact with that which it is highly proper to remove, but the removal of which I know this committee has attempted without success; that is, His Majesty's ship lying for the reception of volunteer seamen. If that vessel could be removed we should gain two tiers of vessels, and that in great depth of water, where we might put at least 12 vessels. It would be a great object for this committee if they could get the Lords of the Admiralty to authorize the removal of this vessel into some other situation.

I have now to take up that point which Sir John Hall advocates for the proprietors of St. Katharine's Dock. I take it up on behalf of the legal quay wharfingers, and the sufferance wharfingers. The nearer we can get to the heart of the city, the more business will come to it. Above the Tender is a tier for three steamers, sometimes four lie there.

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Then I come to the Dublin tier, where six vessels may be moored, I mean six large vessels of 200 to 300 tons; if they were from 120 to 160, of course one half more might be laid there. Then I come to a barge-road, a swinging tier off Galley-quay, where eight or ten barges are always moored. Then I come to the Upper Barge-road; to from 10 to 12 lying there. They were laid down for the accommodation of the lightermen at the legal quays, who certainly do not have to the extent they used to have; for one dock or one establishment and the other has so lessened the trade of the legal quays, that we have not one-third of the lighters employed that used to be 12 years ago. If the harbour-masters could see their way clear to make that a mooring tier, it would be much more advantageous to the port of London than swinging about as they are. On a strong spring-tide I frequently see some of them crushing their sterns against the bows of others right across the river, in a very dangerous situation, without being able to extricate themselves. Then I come off the Custom-house lower stairs to a tier laid down for steamers; there are generally three, or four, or five, and I dare say I have seen six there. I never revert to this subject, but I recollect the pleasure I took in getting these moorings laid down, and fighting the elder brethren of the Trinity House. After they had denied to this committee the laying down of those chains, they came down and took a view again, and granted the request which I submitted to the port of London committee. Then I come to Yarmouth-chain, where eight vessels may be laid. Then I come to the Eel-chain swinging tier; for the boats lying there it is necessary that they should be hanging in the ebb-tide. I have now gone through the north side, from where I commenced, at Union-stairs tier, to the tier at the Custom-house, and I have shown the entrance to the St. Katharine's Docks. Where there are large batteries, it is not easy to knock them down, but I am quite satisfied the *radius* of the St. Katharine's Dock is not a fair one. The London Dock at their entrance have taken their *radius* from the centre; these gentlemen have taken it from both the western and the eastern end. I recollect being told by a gentleman, now out of the court, that they had taken the opinion of the Attorney and Solicitor-general; I doubted it, and that gentleman doubted it too; but the committee granted them that space. The number of ships in the situation I have described, from Union-stairs up to Eel-chain tier, is 101; that 101 is independent of two tiers which may be obtained if the Tender can be removed. I will now commence on the south side of the river. At Church-stairs there is sufficient accommodation for a tier to hold ten ships; at Elephant-stairs tier seven, at Prince's stairs tier eight, at King's-stairs eight, at Rotherhithe-stairs seven, at Surrey-mills seven, at Cherry-gardens six, at Fountain lower tier six, at Fountain upper tier six. From Fountain-hole-stairs to East-lane there are three tiers of steamers, and very large steamers they are, lying in about thirteen or fourteen feet water; the Scotch and Irish vessels principally have had that accommodation, but it would be desirable, if we could, to get them better accommodation, and perhaps that may be done. They are of essential service to the sufferance wharfingers and the legal quay wharfingers; they are that description of vessels which cannot go into docks, or I dare say they would find the way to fish them in. From Fountain-hole tier to East-lane tier there are three tiers of steamers, with generally six vessels, more or less: astern of them lie what are described as the Trinity buoys, where the lighters and barges are lying for the purpose, I believe, of taking ballast to the ships in the Upper Pool. Then I come to East-lane tier, five vessels, and those being restricted, to allow of 300 feet navigation room, only a small number of vessels can be put into those tiers; they have had frequently nine or ten vessels, but I have put them at five; Bishop's-chain five, Mill-stairs lower tier five, Mill-stairs middle tier five, and Mill-stairs upper tier five. Then I start again from St. Saviour's Dock, and opposite the entrance of that dock, where there are nothing but barges and lighters going in, neither sailers nor steamers, there are two lighter-roads, called Campbell's-road and Blackstone's-road. Then I come to Horsleydown lower tier, which has seven vessels in, but to which I have put down six; the middle tier I have put at five, taking two away. I am obliged to do this to go upon the plan of 300 feet. The upper tier six; I take one away from that, too, on purpose to keep the 300 feet; and only this principle, that the line is much more straight on the north shore than on the south, made me submit to the committee a reduction of a ship here and there. At George's-stairs tier six; Old Rose six. Then I come into four different barge-roads, Garland's-chain, Knight's-chain, Burgess's-chain and Terry's-chain; these, I believe, are all swinging tiers for barges. There are two corn-lighter roads between Terry's-road and Still-stairs, and another called Lee's-stairs; and then the Lime-kiln-chain next. Then I come to Martin's or Bell and Co.'s lighter road. Then my next tier is Pickle-herring lower tier; I have put five ships; they are set forth here as six. Middle tier five; they are set forth here as six. Upper tier the same as before. Then I came to Battle-bridge-stairs tier, six vessels on the south side. There will be 140 vessels moored in the tiers which I have described in these statements, which I beg to hand in to the committee.

The same were delivered in and read as follows:

276. To the Thames Navigation Committee.

North Side, commencing at Limehouse Cut.

Kidney-stairs; one new tier to be moored, if the water is deepened. They propose two new tiers between Limehouse tier and Regent's Canal -	12 colliers.	Ratcliff-cross	lower tier, say	16 ships	90 colliers 12 Kidney-stairs. 102
			upper tier -	16 —	
		Stone-stairs tier	-	18 —	
		Bell-wharf lower tier		20 —	
		Ditto upper tier		20 —	

Regent's

Regent's Canal entrance { Kidney-stairs, removed R.C. 12 / Botany-bay lower, do. R.C. 12 / Do. upper, do. R.C. 13

Trinity buoy, for barges and ballast lighters.

Between Limehouse Cut and Kidney-stairs, 180 feet: they say 1,200 feet.

From Limehouse Cut to Regent's Canal, 650 feet: they say 1,630 feet.

Shadwell Dock tier is removed, where there used to lay - - - L.D. 14

London Dock entrance, three buoys laid down.

Pelican-stairs tier is removed, where there used to lay - - L.D. 10

King James's tier do. do. L.D. 10

I propose that the Chapel ship be removed from the south side to the space allotted for colliers' tiers, between St. James's and New-crane.

New-crane tier is removed, where there used to lay - - - - - 10

King Edward stairs is removed, do. - 8

Wapping-dock stairs is removed, do. - 8

Between Wapping New and Wapping Old-stairs, the Chapel ship is moored.

London Dock western entrance.

London Dock buoys to be moored 40 to 50 feet further in-shore.

Gill's tier, for barges, Lower barge-road, Upper barge-road, Lower tier, St. Katherine's, Upper tier, do. } removed to make St. Katherine's Dock entrance. } 40

Hambro' tier, for steamers, where there used to lay - - - - - 8

Removed - - 145

Union-stairs lower tier, say - - 6 ships.

Ditto upper tier - - 7 —

Hermitage lower tier - - - 7 —

Ditto middle tier - - 7 —

Ditto upper tier - - - 7 —

Alderman's lower tier - - - 7 —

Ditto middle tier - - 7 —

Ditto upper tier - - - 7 —

Iron-gate tier - - - say 6 —

Lower tier - - - - 6 —

Middle tier - - - - 6 —

Upper tier - - - - - 6 —

The Tender, where, if removed, two tiers might lay - say 12

Tier of 3 to 5 steamers.

Dublin tier, off Tower stairs - 6 —

Lower barge swinging tier, off Galley-quay, 8 to 10 barges.

Upper barge swinging tier, off C. H. quay, from 10 to 12 barges.

Tier of steamers off east end of new C. House.

Yarmouth-chain, off the centre of new C. House - - - 8 —

Eel-chain swinging tier - - 8 —

101

Robert Smith.

Galley Quay, 20th February 1833.

South Side, commencing at Pageant-stairs, Pitcher's Point.

From Pageant-stairs to Surrey Canal entrance no ships allowed to lay.

Horseferry.

Globe-stairs.

King-and-Queen-stairs.

Entrance to Surrey Canal.

Mill-hole lower tier - say 18 / Ditto upper tier - - 18 / Hanover-stairs tier - - 18 / Parson's tier, off Parson's Brewery - - - 12 } 66 colliers.

The Tunnel.

Church-stairs tier - - 10 ships.

Elephant-stairs tier - - - 7 —

Prince's-stairs tier - - 8 —

King's-stairs tier - - - 8 —

Rotherhithe-stairs tier - - 7 —

Surrey-mill-stairs tier - - 7 —

Cherry-garden-stairs tier - - 6 —

Fountain Old-stairs lower tier - 6 —

Ditto upper tier - - 6 —

Hayes swinging barge-road.

From Fountain-hole upper tier to East-lane-stairs, three tiers of steamers lay (say 6 steamers).

Trinity lighter-road in-shore.

East-lane-stairs tier - - say 5 —

Bishop's-chain tier - - - 5 —

Mill-stairs lower tier - - 5 ships.

Ditto middle tier - - 5 —

Ditto upper tier - - 5 —

Entrance to St. Saviour's-dock.

Campbell's barge-road.

Blackstone's barge-road.

Horsleydown lower tier - - 6 —

Ditto middle tier - - 5 —

Ditto upper tier - - 6 —

George-stairs tier - - - 6 —

Old Rose tier - - - - 6 —

Garland-chain, Knight's-chain, Burgess'-chain, Terry's-chain } used as barge-roads.

From Terry's-road to Still-stairs, two corn-lighter roads, and another called Lee's-road.

Limekiln-chain.

Martin, or Bell and Co.'s swinging lighter road.

Pickle-herring lower tier - say 5 —

Ditto middle tier - 5 —

Ditto upper tier - - 5 —

Battle-bridge tier - - - 6 —

140 —

Robert Smith.

Galley Quay, 20th February, 1833.

277. The above plan, put in by Mr. Robert Smith, was inspected.

278. Mr. *Figgins.* Does your plan at all increase the number from what are at present moored in the river Thames?—Mr. *R. Smith.* I should rather think it is a decrease, but I cannot

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I cannot at present state; there will be one day 120 sail, and the next day not above 70 or 80. I have consulted pilots and other experienced men, and my opinion is that it is a decrease. The vessels lying on the shore, either foreign trade or coasters, I have not brought under consideration, only those vessels lying afloat.

279. Mr. *Taylor.* In your experience as a practical man, are you of opinion that the navigation of the river within the last ten years has been improved, or the contrary?—Mr. *R. Smith.* I have no hesitation in stating that it has been very much improved, as compared to what it was ten or twelve years ago. The attention of the official officers has kept the port of London in a much better situation than it was prior to that.

280. *Chairman.* In the last ten or twelve years the port has been kept in a better state than it was previous to that?—Mr. *R. Smith.* Yes; I have gone down the last ten or twelve years with the navigation committee, and when I came to narrow channel, cast my eyes on the sterns of the vessels, I was quite surprised at there being so much room for the vessels to go up and down; I have looked to the eastward and westward with regard to the vessels when they were moored; there has been a great improvement of late.

281. Mr. *Taylor.* In the plan you have submitted have you provided sufficient space between each of the tiers you recommend, for the purpose of the trade carrying on at those tiers?—Mr. *R. Smith.* I have provided sufficient space between the tiers to give the vessels a good opportunity of hauling in and out.

282. *Chairman.* And therefore plenty of room for craft?—Mr. *R. Smith.* Yes.

283. Mr. *Taylor.* The committee understand that your opinion is against the system of bridling?—Mr. *R. Smith.* I have sketched it out on the plan, and when I look to Sir John Hall's plan, the chains extending out and the man being under the necessity of letting go to prevent going athwart hawse, it is a hundred to one but he lays hold of that chain; if he lays hold of it with the common depth of water, he cannot get at it to unhook it. It is frequently the case at Blackwall that these things take place, but here it must be more so where the passage is so narrow. Here are 12 colliers lying on this plan, six up and six down, between those tiers; there most likely will be from 20 to 25 barges waiting to take their turns to get aboard as fast as they are loaded: I cannot see how those barges can get out, if they have got into a wrong place, until the next tide. The chain, from the bridle to the vessel's bow, is to be 10 feet, the vessels themselves are 14 and 16 feet wide; and how are they to haul out?

284. Mr. *Taylor.* What is your opinion as to buoying off the channel of the river?—Mr. *R. Smith.* Supposing there was a buoy at the extreme end of this chain, it would be impossible at all times to keep clear of it; then if a vessel is an old vessel, and there is a great space between her hull and her rudder, if the chain is two or three inches in circumference and she hooks it, it will bring her stern foremost, and she must swagger against the next tier.

285. *Chairman.* Upon the most mature consideration of the plan of Sir John Hall for mooring, you have a most decided objection to it?—I have; for the reasons I have assigned. I should have no objection to supporting it, if I could see it practicable. I have made my calculations of 300 feet from the consideration of its being in the bye-laws; but I think it would not have been in those bye-laws if I had been before the committee.

286. *Chairman.* The gentlemen who are deputed by the wharfingers on the south side of the river have heard the plan proposed by Mr. Smith, and the minute explanation he has given. If any gentleman has anything to say in explanation or refutation of that which he has said, the Committee will be most happy to hear him.—Mr. *Mark Brown.* I concur entirely in what Mr. Smith has said. I am most decidedly of opinion, being a practical sailor, that if they lay the buoys down in the river as proposed by Sir John Hall, the time will not be far distant that they will get the chain between the rudder and the stern post, and it will be the cause of the loss of some valuable ships.—Mr. *Burgess.* It would I am sure be very dangerous to persons crossing the water in a boat. The colliers generally moor with chains; it will get rid of that sort of inconvenience noticed by Sir John Hall, but it will endanger craft that are loaded; they will come athwart those chains, and very probably will be upset.

287. *Chairman.* What is the opinion of the gentlemen as to the necessity of maintaining a clear passage of not less than 300 feet?—Mr. *Burgess.* I think it may be done, with proper attention on the part of the harbour-masters.

288. *Chairman.* Do you think it desirable?—Mr. *Burgess.* Yes, if it can be done.

289. Mr. *W. Brown.* There is one difficulty which we feel; that nearly opposite to our premises there are seven vessels in Pickle-herring tier, and close to that tier, where there ought to be an open space, there are six more; in consequence of which the vessels coming to our wharf have to come a considerable space lower down, instead of coming in directly to the wharf.—Mr. *Figgins.* That probably has been an accidental circumstance.—Mr. *W. Brown.* Not by any means; it is becoming very common.

290. Mr. *Burgess.* I fully coincide with Mr. Smith, that the navigation of the river has been very much improved within the last 10 or 12 years. When there were ships opposite to the present entrance of the London Dock, I have known a man coming down with a barge obliged to use every effort to clear those vessels at Prince's-stairs; now it does not require half the attention in going down with a barge or bringing one up. Formerly the men could hardly keep clear at East Lane in consequence of ships lying out so far; there were vessels of 400 or 500 tons each lying off.

291. Mr. *Fisher.* Within the last three or four years has the navigation been improved, as compared with the time previous to that?—Mr. *Burgess.* I do not know that it has been greatly improved within the last three or four years.

292. *Chairman.* Do you attribute the improvement which has taken place to the docks taking in many ships which used to lie in the stream?—Mr. *Burgess.* Yes; I conceive that the navigation of the river has been improved materially since the establishment of the docks.

293. Mr. *Taylor.* You couple that with the increased water-way which has been maintained?—Mr. *Burgess.* Yes; I believe that the establishment of the docks has contributed to give us an increased water-way.

294. Mr. *Taylor.* May I beg to ask what is your opinion on the question of bridling?—Mr. *Burgess.* My opinion is that it is an abortive scheme; that it will endanger the lives of His Majesty's subjects in crossing the Thames, and also the safety of the craft passing up and down.

295. Mr. *Taylor.* One gentleman has observed, that between the tiers there are frequently six or seven ships lying. If such a state of things could be prevented, ought it not to be prevented?—Mr. *W. Brown.* I think the regulations affecting the Upper Pool do not come under the cognizance of the bye-laws which regard the navigation of the river; it is impossible almost to prevent it.—Mr. *R. Smith.* I am sure that the harbour-masters are disposed to do their duty; but when we look at the immense number of small coasters which come with corn and flour into the port of London, which must be discharged in or near the city, it cannot be wondered at that the harbour-masters grant an indulgence, at times, for vessels to intermix between the tiers. If that accommodation were not afforded by the harbour-masters, those corn-freighted vessels must be kept down in Bugsby's Hole, or at Greenwich or Blackwall, till an opportunity for their coming into the tiers. It frequently happens that before they can get an opportunity of mooring, their cargoes are sold, and they discharge and get off again. I will take the liberty of saying only one word more: I trust and hope that the committee will feel that the legal quay wharfingers, the old and ancient customers of this high road in the port of London, and also the sufferance wharfingers, have a claim to the protection of their interests quite equal, if not superior, to that of any dock establishment whatever in the port of London.

296. *Chairman.* I am satisfied, I may say on behalf of the committee, that the interests of the gentlemen who are attending them will not be overlooked. The necessities of the port and their interests concur in requiring a free passage, and a free navigation of the river to the utmost extent that can be obtained; but in maintaining this the committee certainly will not overlook the accommodation of the greatest number of ships which can be disposed of in convenient situations in the port of London, preserving at the same time the passage as wide as it is required to be, and the necessary accommodation to the vessels discharging their cargoes at the wharfs. And I beg, as chairman of the committee, to express their thanks to the gentlemen, and particularly Mr. Smith, for the information they have communicated. [The members of the deputations withdrew.]

297. Resolved, That the plan delivered in by Mr. Smith be referred to the harbour-masters to examine and report upon.

298. Resolved, That the further consideration of Mr. Smith's letter and statements be adjourned to the next meeting of the committee. The following paper was read:

299. Sir, Harbour-masters' Office, St. Katharine's, 21st February, 1833.

Agreeably to your request of the 5th instant, I have examined the plan of Sir John Hall for mooring the colliers in the Lower Pool, and beg to state my opinion on the same; I therefore beg to state to you that the plan is by no means a good one, as the thwart chains would be very much in the way of all ships and vessels passing up and down the river, as they are constantly in the habit of letting go their anchors to prevent damage, and would therefore hook the moorings and move them, which would let all the ships in that tier go adrift, and damage the craft and other vessels. Also the buoys and chains as proposed would obstruct vessels from passing into and out of the tiers, and prevent craft getting alongside of the ships to take in or discharge their cargo.

I am, Sir, your humble servant,
Matthew Marshall, Superintendent of Mooring Chains.

To Edward Tickner, Esq., Chairman of the
Thames Navigation and Port of London Committee.

300. Ordered, that this committee be summoned to meet on Friday next, the 1st day of March, at 11 for 12 o'clock, and that the following parties have notice thereof, viz. the Shipowners' Society, the watermen and lightermen, and the steam-navigation proprietors.

[Adjourned.

Friday, 1st *March*, 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

[*Copy from Mr. Gurney's short-hand writer's Notes.*]

The following letter was read:

301. My dear Sir, St. Katharine's Docks, 28 February 1833.

With reference to the paragraph in the memorandum [48] which accompanied the representation of the St. Katharine's Dock Company relating to the shoals in the river, I beg

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leave to transmit you, for the information of the worshipful the navigation and port committee, the copy of a report from the dock-master, with copy of answer from the Trinity Corporation thereupon; and I am to add, that another shoal of an equally dangerous description exists in the reach between the Folly-house, Blackwall, and the point of the Isle of Dogs opposite Greenwich.

I am yours, &c.

To Henry Woodthorpe, Esq. *J. Hall*, Sec.

302. Sir, Pier-head, 6 January 1833.

On examining the shoal in Limehouse Reach at low water this morning, I find the bottom very hard in most places, and the depth of water varying from 8 feet 9 inches to 12 feet, with many holes, places no doubt where the steam-engine has been at work, having 14 feet water in such holes. In the deepest part the ground is more loose and gravelly than in other places; the shallowest part of the shoal is of no great extent, but which makes it most dangerous for vessels to ground on, and if it cannot be removed it ought to be levelled forthwith. The shoal lies opposite Atkins's wharf, nearly in the middle of the river, rather nearer the east shore or Isle of Dogs, having a channel on each side with 12 feet water, low-water Trinity *datum*.

I am, &c.

To Sir John Hall. *C. S. Compton.*

303. Sir, Trinity-house, London, 14th February 1833.

I have laid before the elder brethren of this corporation your letter of the 6th instant, transmitting, by desire of the directors of the St. Katharine's Dock Company, copy of a report of the dock-master relative to the state of the shoal in Limehouse Reach, and signifying their request to be informed whether the elder brethren will be pleased to give directions for levelling the shoal in question to the depth of 12 feet. And I am directed to acquaint you, for the information of the directors, that it has been ascertained that the material of which the said shoal consists is not fit for the ballasting of ships or vessels, and that the elder brethren are therefore under the necessity of declining to give directions for levelling the shoal in the manner pointed out in your letter.

I am, &c.

To Sir John Hall. (signed) *J. Herbert.*

The following letter was then read:

304. Gentlemen,

In May or June last year we, and several of our neighbours, petitioned your committee for the removal of the tier called Limekiln-chain to the place where the lighter-road westward lies, and make it a moored tier; and the lighter-road westward to the place where the Limekiln-chain now lies; and which petition was referred to the harbour-masters to report; which report we have not the opportunity of hearing further of, than as we have applied to harbour-master Captain Fisher, who, as we understand, says that the city will not exchange with the proprietor of the lighter-road. It would be a great benefit to the public if it was so altered; as the tier is almost every tide swinging foul of either the lighter-road above or the lighter-road below, it making so large a space to swing round in at the turn of the tide, and obstructing the way until something breaks or gives way either on board the vessels or craft, and which has and does continually cost, both the owners of the vessels and craft, a great deal of money to repair the damages occasioned thereby, as well as causing, at those times, obstruction from the centre of the river to the shore, and which might be remedied by the exchange, give equal accommodation for as many if not more vessels, and be a benefit to all parties. But if it should not meet with the approbation of the committee to remove the Limekiln tier, there is another mode in which it might be altered for the better, though the evil not entirely removed, that is, by putting down another mooring-stone, with a piece of chain about 16 feet long, 30 feet westward of the stone that holds the Limekiln-chain; fasten it on the standing part of the Limekiln-chain 15 feet from the stone now lying there, which will keep the tier 30 feet from the road eastward, and enable it to swing clear of it unless there should be a great excess of vessels in the tier, say ten or eleven, which is sometimes the case; but now it swings foul, or against the barge-road, when there is only five or six vessels in the tier; and to prevent it swinging against the barge-road to the westward, the proprietor will do the same to it, as we humbly submit for the committee to do to the Limekiln-chain, if the committee have made up their mind not to remove the Limekiln-chain: and we are sure that the gentlemen of the navigation committee will take such steps to give accommodation and remove obstructions, as will make the port of London the most expeditious, as well as the most advantageous place of business in Great Britain.

To the Worshipful the Navigation Committee of the Port of London.

H. Keen & Son, Pickle-herring wharf.
Ty. Addis & Son, Freeman's wharf.

305. This letter was referred to the harbour-masters for consideration.

306. Captain Fisher then handed in a plan, which he stated, in answer to a question from the chairman, to be similar to the one prepared by Mr. Smith.

307. The following Report was then read:

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At the Monthly Meeting of the Harbour-masters, held at the Office, St. Katharine's, this 27th day of February 1833; present, Captain John Fisher, Mr. Charles Rowland, Lieut. William Mayott, attended by James Elmes, Esq. surveyor of the port of London.

A resolution of the worshipful Thames navigation and port of London committee, of the 22d instant, requiring the harbour-masters to report specifically upon all the points contained in the proposed plan of the coal-trade, was laid before this meeting, and read.

No. 1, of Mr. Barchard's plan, is thus:—I am directed by the deputation of the coal-trade who were favoured by the conference with the navigation and port of London committee to forward herewith, for their information, a plan, from actual survey, of the proposed position of the tiers for colliers in the river, by which it will be seen that ample space is allowed for mooring 246 ships, at the same time reserving a clear space of 300 feet for ships passing up and down, and not filling the tiers so full as allowed by the bye-laws; nearly all of which has been achieved by a new arrangement of the tiers, and by making use of some parts of the river now occupied by light ships laying up, and by the Episcopal chapel; but by so doing, some alteration of the moorings becomes necessary.—To which the harbour-masters, in answer, say, they are of opinion that the number of colliers, 246, named by the coal-merchants to be in the Pool at one time for delivery, is not required. The account required will stand thus:—

Ships for weighers - - - - - - - -	150	
Ships to be in readiness - - - - - - -	25	
Light vessels - - - - - - - - -	25	
		200 sail.
Deduct Newcastle traders, vessels laying at the moorings, and Regent's Canal - - - - - - - - -	30	
Total - - -		170 colliers,

required to be at one time in the Pool. To accommodate which the harbour-masters propose the following, which will afford sufficient space for the purpose of free navigation for ships of the largest class:

Hanover-hole upper tier -	16—Water to be deepened, and church ship removed.
Do. lower tier -	18—Water to be deepened inside.
Mill-hole upper tier - -	20—Water to be deepened inside.
Do. lower tier - -	18
Coal-stairs tier - - - -	22
Stone-stairs tier - - -	20
Ratcliff-cross lower tier -	16
Do. upper tier -	18
Total - -	148

The mud on the north shore, from Pelican-stairs to Wapping Ness, to be cleared away. The harbour-masters, in proposing this plan to the consideration of the committee, do so with a perfect knowledge that there will be sufficient space for all purposes of navigation through the Collier Pool, provided that when colliers and other vessels are driving with the tide, and others propelled by steam, that the steam-boats shall cast off from the ships at the entrance of the Pool, and such vessels shall drive up with the tide, in the same manner as other vessels; ships towing against the tide, the vessel and steam-boat shall wait until there is a clear space for her up or down the river. Should the committee consider it necessary that a navigation through the Pools should be kept open, for the purposes of ships driving up with the tide, and for ships of 800 tons and upwards to navigate past them by steam to the St. Katharine's Dock, it will be necessary to remove part of the coasting-trade of the port of London down to Limehouse and Mill Wall, upwards of two miles from their usual place of business, and the larger ships in the coal-trade will be compelled to discharge their cargoes at Deptford and Greenwich, the expense and inconvenience of which to the respective parties must be evident to the committee.

No. 2. Mr. Barchard's plan; first, to remove the ballast-barge road from Ratcliff Cross: on the plan now laid down, it will be seen that all the space above the London Dock lower entrance is given up, and the colliers proposed to be moved to the south side.

In reply thereto the harbour-masters say, that in respect to the Trinity ballast lighter-road, the harbour-masters have never seen any inconvenience arise to the colliers laying at the tiers near that part of the river, and it is found convenient for the supply of ballast to the light colliers. This lighter-road belongs to the Trinity House, and is under their direction; and in our opinion a more convenient place cannot be found.

No. 3. It will therefore become necessary to remove the Episcopal chapel from its present position on the south side to the north, between the two entrances to the London Docks.

The removal of the chapel ship from its present position, and placing a tier of colliers there, the harbour-masters can see no objection to, provided the water is deepened.

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No. 4. To carry these arrangements into effect, power must be obtained to remove shoals, particularly one on the south side, by Hanover Hole, and also another a little higher up.

No. 5. We also suggest marking, in a conspicuous place on the shore, the precise situation of each tier; and that the harbour-master himself, or some efficient officer, should personally superintend the mooring of colliers as they arrive in the Pool.

No. 6. It would be advisable to lay down a mooring-chain at Cole-stairs, directly below the London Dock lower buoy, thereby keeping the first tier in a fixed position on the north side. Chains would also be desirable at Botany-bay and Kidney-stairs, as it is not considered good holding ground. We hope by the plan ample space will be given to the different dock entrances, and that no inconvenience will arise to any other person.

In reference to shoals, the harbour-masters are of opinion, as previously reported to your committee, that with the present machinery, no banks or shoals ought to exist in the river Thames.

In placing marks for collier tiers on the shore, the harbour-masters have to state, that the experiment was tried in the year 1826, and found of no utility, as the shifting of the tiers preserves and increases the depth of the waters.

In placing moorings for colliers at Cole-stairs and Botany-bay, the harbour-masters are of opinion that it would be found inconvenient, and attended with great expense in laying them down, and keeping them in repair. The colliers' anchors will be constantly getting foul, and in blowing weather and strong tides the moorings would be carried adrift by colliers driving from their anchors foul of them, and much confusion and damage will ensue to the shipping; in addition to which, it will be necessary to place buoys on the moorings, and the barges for unloading colliers would not be able to get in and out of such moored tiers without great delay and inconvenience. And the harbour-masters are further of opinion, that no better plan can be adopted than the present for the mooring and delivery of the cargoes of colliers.

With respect to placing two tiers of colliers below Kidney-stairs, we find it impracticable, from the shallowness of the water, hardness of the ground, narrowness of the river, and the race of the tide there, and would tend to obstruct the entrances to the Regent's Canal and the Pool; and, as reported before to your committee, is found to be the only convenient part of the river for placing light vessels to take in their ballast and stop tide. The space between the Regent's Canal and Shadwell-dock stairs we find by experience that there is good room for five tiers, and not enough for six, to allow sufficient space between the tiers for the accommodation of craft hauling in and out. The four tiers laid down in the plan in the space from the Tunnel to the platform at Rotherhithe occupy the position of regular moored tiers, as reported before to your committee, and used by vessels in the Baltic, corn, Irish, iron, and the larger size vessels in the coasting-trade, on the removal of which the parties concerned in those trades would be seriously injured, and their interests are entitled to the protection of this committee. As long as the colliers are compelled to discharge their cargoes in the Pools, the harbour-masters have again to repeat to your committee, that there is no better plan than the present for placing and mooring colliers, as their attention (consistent with their other duties) is devoted nearly the whole of the flood-tide to the regulation of the collier tiers.

A Return of the Situation and Extent of the Shoals existing between London Bridge and Blackwall, and the Accommodation which may be afforded to Shipping by the removal of such Shoals.

The water at Hanover-hole upper tier, near the Tunnel, will require to be deepened for a tier of 16 ships; also the inside of Hanover-hole lower, and Mill-hole upper and lower tiers. From Wapping Ness to King James's, if the mud was removed and the water deepened, accommodation would be afforded for 12 to 18 sail of vessels. From Durand's wharf at Cuckold's Point to the Victualling-yard at Deptford, is generally shoal water, the removal of which would accommodate about 60 sail of vessels; but from the situation of the space, the harbour-masters are of opinion it would soon be filled up again. The removal of the Limekiln-shoal at Limehouse-hole will benefit the navigation of the river, and give accommodation to four vessels at Limehouse-hole tier. The removal of the Whiting-shoal in Limehouse-reach, from the Condemned-hole to the lower end of Atkins's wharf, will be a great benefit to the navigation of the river. The removal of the Middle Ground in Blackwall-reach, extending from a ship's length from the rope-ground down the middle of the reach, would greatly improve the navigation.

(signed) *William Mayott.*
John Fisher.
Charles Rowland.
James Elmes, Surveyor of the Port of London.

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AN ACCOUNT of Vessels which can be accommodated in the Port of London, between Blackwall and London Bridge, so that a free Passage-way of 300 feet be at all times open; specifying the Numbers and Situations proposed for the Tiers, the greatest Number of Vessels to be allowed at each Tier, the Depth of Water at the respective Tiers, and Nature of the Anchorage.

SOUTH SIDE.	Depth of Water Inside.	Number of Ships.	Depth of Water Outside.	NATURE OF ANCHORAGE.
1. Battle-bridge tier	9	6	11	Hard gravel and clay.
2. Pickle-herring upper tier	10	5	12	
3. Ditto middle tier	12	5	13	
4. Ditto lower tier	11	5	12	
5. Limekiln chain	7	7	13	
6. Garland's chain	10	8	10	
7. Old Rose tier	9	7	13	
8. Horsleydown upper tier	10	7	10	Black trashey, and clay.
9. Ditto middle tier	11	6	11	
10. Ditto lower tier	10	7	12	
11. Mill-stairs tier	10	6	12	
12. Bishop's chain	10	6	11	
13. East-lane upper tier steamers	11	2	14	
14. Ditto lower tier steamers	11	2	14	
15. Fountain-dock tier steamers	11	2	14	
16. Ditto corn road	12	6	16	
17. Ditto hole tier	9	6	14	
18. Cherry-garden upper tier	11	6	12	
19. Ditto middle tier	11	6	12	
20. Ditto lower tier	10	6	14	
21. Rotherhithe, upper tier	10	7	15	
22. Ditto lower tier	11	7	15	
23. King's-stairs tier	11	7	15	Hard gravel and clay.
24. Prince's-stairs tier	11	8	17	
25. Trinity tier	11	7	15	
26. Church-hole tier	12	8	16	
27. Hanover-hole tier, in lieu of church (Collier tiers.)	—	16	—	Number of colliers, 70.
28. Mill-hole upper tier (Collier tiers.)	12	18	16	
29. Ditto middle tier (Collier tiers.)	10	18	14	
30. Ditto lower tier (Collier tiers.)	13	18	15	
		225		

From the Commercial Docks down to the middle water-gate, below His Majesty's dock-yard, Deptford, is occupied by Government, in which the harbour-masters regret not having power to lay ships. — Mud and gravel.

From the middle water-gate to Deptford Creek, 4 tiers, 8 ships at each tier, water 22 to 26 feet - - - - - 32

Total - - 257 South Side.

From Deptford Creek to the bight below the town of Greenwich is used by colliers detained for want of sufficient room in the Collier Pool for their accommodation, and other vessels stopping tide: average depth of water from 13 to 17 feet. — Gravelly soil.

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NORTH SIDE.	Depth of Water inside.	Number of Ships.	Depth of Water outside.	NATURE OF ANCHORAGE.
1. Eel chain	9	6	9	
2. Yarmouth chain	9	6	10	
3. Dublin chain	11	6	13	
4. Tower upper tier	11	6	13	
5. Ditto middle tier	9	5	14	
6. Ditto lower tier	9	5	13	
7. Iron-gate tier	10	6	13	
8. Alderman's upper tier	9	6	11	
9. Ditto middle tier	9	7	11	
10. Ditto lower tier	8	7	9	Gravel and clay.
11. Hermitage upper tier	9	7	10	
12. Ditto middle tier	9	7	12	
13. Ditto lower tier	11	7	12	
14. Union-stairs upper tier	9	7	12	
15. Ditto lower tier	11	6	16	
16. Bell-wharf upper tier	12	20	16	Collier tiers. Number of colliers - 88
17. Ditto lower tier	11	20	15	
18. Stone-stairs tiers	14	18	16	Total No. of colliers - 158
19. Ratcliff-cross tier	10	16	17	Ditto coasters - 283
20. Ditto lower tier	12	14	17	441
21. Limehouse-hole tier	10	7	16	
22. Canal tier	10	8	16	Rocky and clay.
23. Tier below the canal	13	9	14	
24. Second tier below the canal	9	10	12	
		216		

From the second tier below the canal down to Mellish's wharf is shallow water, and only used by foreign vessels of light draft of water. — Hard gravel and mud.

The anchorage from Saunders' Ness down to the Blackwall entrance to the south dock is occupied by steam-vessels laying up, and detained colliers when there is not sufficient room for them in the Collier Pool, and other vessels stopping tide: average depth of water from 8 to 16 feet. — Mud, clay and gravel.

The buoys and moorings at the entrance of the West-India Docks, and the entrance of the East-India Docks, are used by vessels going in or out of the said docks: depth of water from 17 to 22 feet. — Hard gravel.

In making the above return to your committee, the harbour-masters beg to state that, from strong wind, tides, swing of the moorings, 300 feet of navigation cannot at all times be kept.

(signed) *William Mayott.*
John Fisher.
Charles Rowland.
James Elmes, Surveyor of the Port of London.
Malcolm Dunnett, jun., Clerk.

Harbour-masters' Office, St. Katharine's, 27th February 1833.

Captain Fisher was then examined by the committee as follows:

308. You have very carefully examined and considered all the space used for anchorage, and the depth of the water between Blackwall and London Bridge, and have reported all the stations which are fit for tiers of ships, and how many may lie in a tier, maintaining a free passage for the navigation of 300 feet?—We have kept that in view; there is a list of the tiers, and the number of vessels in each tier. Sometimes, when it blows hard from the north or the south, the vessels bring their anchors over, and it sometimes takes 10 or 12 hours before they can be moored again. For 10 days running, during windy weather in the month of February, the greater part of the colliers have brought their anchors home in the Pool, which cannot be prevented.

309. This plan only goes to the accommodation of 441 vessels, between Cuckold's Point, Limehouse, and London Bridge, at the usual regular tiers?—I have seen in the Pool in May 1825, in the Upper Pool alone, upwards of 820 vessels, and should the coasters, &c. be prevented or detained from coming into the Pool it would be a serious injury to them.

310. Is it that 441 can be accommodated in tiers, keeping 300 feet for the navigation of the river at all times clear; is that the result of your examination?—Yes; that is so.

311. In addition to this, there will be frequently a great number in the river that are not

not moored?—In consequence of the great number of vessels, we are obliged to detain some below the Pool; the pilots say that it is a pool as far as Greenhithe.

312. Besides, numbers of ships lay between the tiers?—The committee went down to Gravesend in December, and I am sure they must recollect the state of the Pool at that time. There were 900 colliers in the river at one time, lying from Greenhithe all the way up the river.

313. You would not allow them to come as high up as they wished?—We could not do so and keep an open navigation through the Pools.

314. Captain Fisher speaks of the number of ships which are detained in the river below, because they are not allowed to come up. I wish to ask him this question: Supposing a dock was made, in which colliers might be conveniently accommodated, would not the greater part of those ships go into the dock?—I have no doubt of it; but there is one thing of which I am particularly aware, that at present the coal merchants would not purchase a single coal out of one of those ships that went into the dock.

315. Are you of opinion that in your plan for affording accommodation to 170 colliers you are giving the coal-trade a preference over any other trade which has been accustomed to use the port of London?—Not at all; we consider the 170 vessels as sufficient for working at one time.

316. You do not consider that it is giving an undue preference to the coal-trade?—Certainly not; our plan is to steer clear of every party. We have not forgotten that some vessels go into the Regent's Canal, and some vessels which lie higher up the river, such as the Newcastle traders, who have a cargo of part iron and part coals.

317. You do not include them in the 170?—No; we include them in the 200.

318. What you mean is, that 170 could have accommodation in the Pool?—Yes; that is, at the usual collier tiers.

319. In making your calculation of 200 vessels, do you take 170 colliers and 30 connected with all other trades, the foreign trade included?—No; the 30 are vessels that are partly loaded with coal and partly with other things; some of these go into the Regent's Canal, and others go higher up the river; some of them bring Welsh coals, and some come from Yorkshire.

320. Are not the Newcastle traders principally laden with coal?—No; sometimes they have part iron or glass, or other merchandise.

321. I have been several times a passenger on board the Newcastle traders, and on an average I have found that three-fourths of them are laden with coal, so that they really are colliers, and you call them colliers?—We do, certainly.

322. To give this accommodation must you not remove the banks or shoals that you spoke of?—There is only one material place, and the removal of that will give us room for 16 vessels.

323. Have you at all calculated the expense?—I have not.

324. Are you of opinion that the benefit which will result from this plan being carried into execution is of such importance as to render it advisable?—I think that where the chapel-ship lies, at Hanover Hole, it would be worth the expense.

325. The other places are of less importance, and will not be so troublesome?—I think it would be almost impossible to do it, from the expense that would attend it.

326. The number of ships that you have mentioned, 441, cannot be accommodated without some excavation of the bed of the river?—They cannot.

327. And some shoals being taken away?—Yes.

328. What difference will that make?—There will be room for an additional 16 colliers at Hanover Hole.

329. When that is done you will have room for 16 more?—Yes; we shall not want to have it much deepened there, for there is from 11 to 12 feet water at that place.

330. You do not suppose that the expense of the removal of the shoal would be of great magnitude?—I do not think it would be of any great consequence; the Trinity House are likely to take the stuff away.

331. Is the bottom soft?—Some part of it is hard and some part soft. They have excavated for the chapel-ship: where she lies it is a gravel. I do not think there is any clay.

332. I wish to know whether this plan of berthing 441 ships will lessen the accommodation that now exists in the river?—Considerably; particularly in the Upper Pool.

333. In round numbers, how many ships less will be admitted, speaking generally?—I should think between 300 and 400; on an average from 150 to 200.

334. Do you think that from 150 to 200 ships will be prevented coming into the river that are now allowed to do so?—Yes; that is my opinion.

335. Mr. *Bridge*. What is the object in contemplation from lessening the number?—*Chairman*. The object is to keep up a free passage in the river for navigation.—Captain *Fisher*. It is to allow large vessels to go into St. Katharine's Dock; that is really the object. It will be an advantage only to the proprietors of St. Katharine's Dock and to the large steam-boats.

[Examination continued.]

336. Will it not also be of advantage to all other docks?—If it clears the waterway to St. Katharine's Dock, of course vessels that want to go into the West-India and London Docks will be also benefited by it.

337. I wish to know from what part of the river the principal part of the trade is removed;

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moved; whether from that part near to St. Katharine's Docks or the lower part?—It will be generally, from Limehouse to London Bridge.

338. *Chairman.* The information, as far as regards the coasting-trade, we had better get from the parties themselves. The wharfingers are of opinion that it is most essential to keep a free navigation.—Captain *Fisher.* A part of the wharfingers who were here have the management of the large steam-boats, and they feel it to their advantage to have a large space for their boats to go up and down. I have here a list of large vessels that have come into St Katharine's Docks.

[Examination continued.]

339. Do I understand you to say, that there is a shoal in the river, by the removal of which you can make accomodation for 16 more vessels?—Yes; that is so.

340. By the removal of this one shoal, you will be able to accommodate 16 more vessels out of the 800, which, you say, are sometimes obliged to be kept out of the river?—Yes.

341. Are there always 441 allowed in the river?—We allow that number, but are obliged to have more at times for the accommodation of the trade.

342. May I take it for granted, that there is always that number, 441, in the river?—I cannot say there is always.

343. Does it not happen that there are sometimes not so many?—Sometimes there are not more than 200, at other times there have been more than 600.

344. When there are 441 vessels in the river, are 200 of them colliers?—I cannot say that is the case always; sometimes there are a great many coasters and foreign vessels.

345. Do you not allow more than 200 colliers?—In order to keep up 300 feet clear for navigation we never have exceeded 200.—Mr. *Rowland.* We never have exceeded 170 in in the Collier Pool, within the last twelve months.

346. The remaining number are ships of all kinds, in the foreign and home trade, and coasters; mercantile ships?—They are principally coasters: the foreigners principally go into dock. We sometimes have a few foreign vessels in the river.

347. With regard to the 800, which you spoke of as having had at one time, might not this 800, if they pleased, have come up the river and gone into any of the docks?—I am convinced there is sufficient room in the docks for them.

348. If they had told you they wanted to go into dock would you have allowed them to come up the river to do so?—We have never prevented them: a merchant orders his vessel to go into which dock he pleases.

349. Do you suppose that the reason for their remaining is, that they do not like to pay the dock dues and charges?—The principal number of vessels detained below are colliers, but there are a great many coasters.

350. What is the reason that the coasters do not like to come up the river? Is it that they do not wish to pay the dues and charges?—The freights are so low, that if they were to pay dock dues and charges they would make little or nothing by the voyage.

351. Supposing that there were free docks provided by the city of London, where they would have to pay no dues at all, would they go in there?—Oh, yes! directly.

352. Suppose that the corporation of London provided docks which were free, and into which they could come without paying any dues, do you think they would come up?—I should think so. The shipowners would send them into dock, because there is not so much wear and tear as in the river.

353. Do you include in this number of 441 the small vessels that are lying at the various wharfs?—We have not mentioned in our report any that belong to the wharfs, only the tiers in the river.

354. Then, independent of the number of small vessels that lie at the wharfs, you provide accommodation for 441?—Yes.

355. Can you give the committee any idea of what is the number that lie at the wharfs?—It is stated in a former report: we could make another return of it.—Mr. *Rowland.* The number that is allowed to remain at the different wharfs is about 180.

356. If these large vessels which now find their way to the St. Katharine's Docks were obliged to unload at Blackwall, or the West-India Docks, would it be necessary to keep 300 feet clear for the navigation of the river?—Not at all. It is only necessary to keep this space in consequence of introducing these large vessels so high up the river.

357. How much might this space be narrowed, if it was not for these large vessels being towed up to St. Katharine's Docks?—If there was from 140 to 150 feet in the Pool at low water, the vessels would be able to come up without any complaint.

358. Is it your opinion that it is necessary to keep up 300 feet clear water-way, for the accommodation of the large vessels that go into St. Katharine's Dock?—Certainly.

359. Is it not also necessary very much on account of the large steamers?—Yes.

360. Has it not occurred to you, that when the foundations of the old bridge are entirely removed, vessels will be constructed with masts to slip up and down, and which will go much higher up the river?—Yes.

361. Have you contemplated that?—I have.

362. When a trade of that sort comes higher up, will it not also be essential to keep open a space wide enough for access to the wharfs higher up?—Yes; but not so extensive as 300 feet: you do not require such a large space for small vessels.

363. The number of vessels you have reported here is 441, which can be accommodated in tiers; is not that about the same number that the present bye-laws allow?—No; it is less.

364. You have heard a suggestion which has been made respecting free docks, into which

which vessels might go and deliver their cargoes, or take in a cargo for as little expense as they do now in the river: supposing there were such docks for ships to go into, do you think the colliers would use them?—I think that shipowners would use them; but as I have stated before, I have heard the coal-merchants distinctly say that they would not buy a coal of the vessels that went into the docks; they are afraid it would lay the trade open.

365. Then the importers of coal have an objection to go into a dock?—Not the importers; the buyers. I think the supply of coal would be more general if they came into dock. We know, that in winter time when there has been a heavy frost for six weeks, that not a coal has been able to be delivered from the ships, although there were 300 or 400 sail in the river. If there was a dock there would be no detention of coal vessels, and the colliers would make their voyages much quicker, and ensure a regular supply to the metropolis: whenever a frost sets in, and the colliers cannot discharge, coals run up immediately to an enormous price, and the poor man who buys his bushel or half bushel daily feels the effects of it; not the person who buys his ten chaldrons.

366. Are the board of harbour-masters decided in their opinion that 300 feet is absolutely necessary for the navigation of the river; or could the navigation be kept free and open, sufficient for the trade of the port of London, with less than 300 feet?—I think so. The large vessels, when coming up against the tide, meet the vessels that are going down with the tide, and that is the cause of much obstruction.

367. What number of feet is it necessary to leave in order that there should be a clear navigation?—That depends greatly on the winds and tides; sometimes it would require more, and sometimes less.

368. But, generally speaking, what is necessary?—I think 300 feet is too much.

369. Do you think 200 feet would be sufficient?—I should think it would be.

370. Mr. *Rowland.* Some years back I had occasion to call on the principal shipowners in the coal-trade, and found they were decidedly in favour of having a dock. An owner of 27 colliers declared to me that he would send all his ships to the dock; but the coal-merchants set their face against it, and would not buy coals from his ships.

371. *Chairman.* Is it your opinion, Mr. Rowland, in concurrence with Captain Fisher, that it is against the interest of the coal-trade to make use of docks?—Mr. *Rowland.* It is.

372. George Frederick Young, Esq., M.P., and Octavius Wigram, Esq., were then called in.

373. Mr. *Young* addressed the committee as follows: I think it right, in the first place, to state that since the last day of the meeting of the committee we have had some correspondence with our friends at the out-ports, who are particularly interested in this question, in order to obtain their opinion. I have received a letter from South Shields, from which it appears that the shipowners there have held a meeting, and come to the following resolution.

Mr. Young read a communication which the General Shipowners' Society had received from the South Shields Shipowners' Society, and a letter which they had received from the Shipowners' Society at Sunderland, as follows:

374. South Shields Shipowners' Society, Committee Meeting held 19th Feb. 1833.

It was Resolved, That the committee consider, that as the accommodation for the delivery of colliers has been limited by the construction of docks for the convenience of other branches of the trade of the city of London, it is incumbent on the conservators of the river Thames to appropriate sufficient space in the river for the delivery of colliers, or to provide accommodation for the coal-trade in any other way that may be convenient, without increasing the expenses on shipping. And they further consider that the plan suggested by Sir John Hall would be attended with great inconvenience to the trade, and that the masters of colliers are too hastily charged with evasions of the existing laws, as they cannot enter the Pool at present without an order from the harbour-master.

375. Sir, Shipowners' Society, Sunderland, 19 February 1833.

I am directed by this committee to acknowledge the receipt of your letter of the 12th instant, with certain proposed regulations and remarks thereon by Sir John Hall, for the better accommodation of the shipping in the Pool, by the removal of the colliers into the Grand Surrey Canal Dock, Regent's Canal Docks, &c.

The committee, after giving the subject their best consideration, have come to the conclusion that, in the present depressed state of the coal-trade, the colliers cannot bear any additional charges or dues, which the plan recommended by Sir John Hall would entail, and therefore they must decline giving their assent to the proposition. At the same time I am desired to say that the committee do not agree in opinion with Sir John that not more than 130 vessels, coal-laden, should be permitted to lie in the stream, or at any of the tiers above the entrance to the West-India Docks, in Limehouse, at one and the same time. The committee (and amongst them are several practical men well acquainted with the Thames) are of opinion that 200 colliers and upwards can be readily accommodated in the Pool for all the purposes of the trade. I remain, Sir, your obedient servant,

(signed) *J. P. Kidson.*

To N. W. Symonds, Esq., Secretary to the General Shipowners' Society, London.

376. Mr. *Young* (in continuation). With regard to North Shields, the place which I have the honour of representing in Parliament, I have received a letter expressive of the

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confidence which they entertain in me, and that they consider their interests are safe in my hands. We have directed our attention to the plan before the committee; we have communicated with the committee of the General Shipowners' Society, and the opinions which I took the liberty of mentioning to the committee the last time I had the honour of addressing them, further consideration has confirmed. They think there is a very great objection to the whole line of argument on which this proceeds. The assumption is, that it is the great object to render the river Thames navigable up to London Bridge. The committee and all other persons consider (at least those who are interested in the commerce of this port) that the Pool must be viewed as a place for the lading and discharge of ships, and certainly the transit deserves its due share of attention. The reasoning seems to me to be founded on an idea that the great thing is to provide means for ships of burthen to come up as high as London Bridge. I see no justifiable cause for this, except it be the very great convenience it would be to St. Katharine's Dock, which is what the shipowners do not exactly recognise. Our attention was not specially directed to it before, so that many reasons to prove the wisdom of the former regulation have been much better considered than they would seem to have been from the outline of the suggestions here given. The proposition was one that was rather taking, until it was looked into more closely.

377. *Chairman.* You think that the bye-laws by which the port is at present regulated are not so impeachable as they would seem to be?—Mr. *Young.* Yes; we think that, after all, somewhat of a large discretion ought to be vested in those who have the management of the executive department, which the commerce is to be controlled by, and the peculiar state of the commerce of the port requires that such discretion should be given. It might be exceedingly injurious for any particular case to be provided for by a particular enactment, and that those who should infringe should become subject to a penalty. For example, with regard to the penalties to be imposed by the 9th section; on first looking at this it struck me that there must be a great defect in it. The Act of Parliament prescribes that the master, pilot or other person having charge of the ship, in default of doing that which is required to be done, shall be subject to a penalty, which shall be recoverable, not from the master, but from the owner. It seems an incongruity that where the offence is committed by the master, that he should escape with impunity, and that the penalty should attach to the owner. On consideration of the subject I think it is a very wise and proper regulation. What would be the consequence if a ship was on the point of proceeding on her voyage? If the master infringe the regulations of a port, and he is to be summoned before a magistrate, what is to become of my ship; how is she to proceed on her voyage? If proof be given that he has committed an offence, the owner of the ship is justly rendered responsible for the offence; if the master were rendered personally liable, the inconvenience to the navigation would be enormous, for the ship would be stopped. It is not to be viewed as a defect in the law; I wish to protect the shipowners from loss, and we object to rendering the master or pilot responsible; we think it is a very stringent clause, but we are satisfied with it. If any alteration be made, we would rather it should be less onerous than more so.

378. Mr. *Figgins.* Suppose it was a foreign owner?—Mr. *Young.* I do not stand here as the champion of foreign owners. Then the clause, going further down, says, that masters and pilots who shall impede or obstruct the navigation in any manner, so as not to leave a clear and unobstructed passage of 300 feet, shall be subject to a penalty; on which Sir John Hall remarks, that the bye-laws having limited the number of ships in certain tiers, no penalty attaches to the master or pilot of any ship which shall be made fast, or moored, at such tier, beyond the number in question: this can only be done after 12 hours' written notice. Cases may occur in which a ship may be stopped temporarily; and to inflict a penalty in such a case, because 300 feet is not kept clear, under such circumstances, I venture, very deferentially, to submit, was never before heard of: it would be placing our property in the most imminent hazard. I see no objection, if the committee think fit to allow this to remain, to say, "if the master or pilot should do so improperly," leaving the decision to any authority you may delegate; but not that if he shall "in any manner obstruct." If a collier is coming up to take her station, she must first bring up in the stream, and then she obstructs the channel. Other circumstances may give rise to the necessity of bringing a ship up in the channel, and it may be impossible to remove her till next tide: if they do wrong, let them suffer; make them liable; but it is the executive department of your establishment that should see to that. If they prove to your satisfaction that a wilful obstruction has taken place, let the parties suffer the consequences. The whole train of my reasoning runs on the same ground. Let a somewhat large discretion be left to the executive authority. Then the next clause provides that a penalty shall be imposed on the owner, master, pilot, &c., who shall moor in any way so as to obstruct the transit to the in-shore passages or ferries. The reasoning there is of a similar description: if there be any wrong done, the parties ought to suffer for it. Suppose the ships are moored in regular tiers, as is projected, what is to become of the craft that are coming to the colliers to take in coals, or going away after loading? they may cause obstruction; it may not be of a serious nature, or it may be unavoidable: if it be wilfully done, let it be the subject of punishment; in many instances it is unavoidable: any one may easily say that, at such a time, I could not pass such a place, and then the craft must be removed: in 19 cases out of 20 of obstruction in the channel there is no serious impediment. The next clause gives power to the harbour-masters to remove vessels forthwith, upon verbal notice. Now ships may be required to move at a moment when neither the master nor the mate might be on board; and I imagine that serious evils and inconveniences might result from

from such a summary jurisdiction; it seems to me to be highly objectionable. I do not see, unless a very strong case of necessity be made out, that there is any reason for giving such a power to your officers; it will be highly objectionable to the shipowners; persons may come on board and take charge of their ships: I should be glad to know how the law would stand. An Act of Parliament can do anything; I hope the House of Commons will take special care that, if such a power be given, there shall be annexed to it a responsibility that, if on the removal of the ship any damage be done, the parties shall have to pay for it. If my property is to be taken out of my hands, give me notice; but do not go beyond the bounds of keeping clear the navigation. Then it says that penalties shall be imposed on those who obstruct the harbour-masters. It will be apparent, from the line of reasoning I have taken, that the shipowners conceive that a large discretion ought to be left in the hands of your officers; and they can have no objection that they should be clothed with powers necessary to give efficiency to their discretion.

379. *Chairman.* If we were to apply to Parliament for such arbitrary powers as are suggested by Sir John Hall, do you think the shipowners would be likely to oppose us; do you think that the powers suggested to be obtained are so arbitrary that they would militate against you?—Mr. *Young.* On the whole, most unquestionably.

380. If we went to Parliament for a series of clauses in a Bill giving the arbitrary powers proposed by Sir John Hall, the interests of the shipowners would be affected: would they be likely to oppose an attempt to get such powers?—I can take on myself to say, without the least hesitation, that the shipowners would feel it their bounden duty, for the protection of their interests, to offer to any such proposition their most strenuous, direct and uncompromising opposition.

381. When you speak of the shipowners, do you speak of the owners of small craft, or persons bringing vessels into the docks?—I know no such line of distinction. I am a considerable shipowner myself, and have ships that go into every dock; the St. Katharine's Dock, London Dock and West India Dock. There is a society of shipowners, and we have correspondents in all parts of the kingdom: when speaking the sentiments of the shipowners, I do so through the medium of the General Shipowners' Society: the question was discussed there yesterday.

382. Would you, as a large shipowner, individually object to this?—Most certainly I should. I conceive that, as a Member of Parliament, I have no right to consider how my particular interest is affected; I should consider how the shipping interest would be affected; I consider it would be injurious to those who are concerned in the navigation of the port.

383. It appears that the object of the bye-laws is to remove the number of small craft which are in the river, to the detriment of the vessels that want to come into the docks?—We do not object to the 300 feet being kept, if it can be done under ordinary circumstances, for the accommodation of the shipping going to the upper part of the river. If you go beyond that, you cannot get the advantage. By the clause it is said that, under all circumstances, however pressing the exigencies of the period may be, all is to yield to keeping the 300 feet; you would be, on the whole, inflicting much injustice on the shipowners generally.

384. Would it be injustice to the ships going to St. Katharine's Dock?—I cannot admit that. I may be a proprietor of St. Katharine's Dock, as well as a shipowner.

385. You spoke of the shipowners opposing this, in the event of an application to Parliament; are the shipowners gentlemen who have ships going to St. Katharine's, and all other docks?—Certainly.

386. Do you think that as a body they would oppose it?—Yes. As a member of the society for the protection of the shipowners, I consider that I should act in a most unworthy manner if I was influenced in the discharge of my duty by the consideration of my interest, as the owner of a particular class of ships.

387. Mr. *Wigram.* We have very little control over the place where the ships go to discharge. It is a business of the consignee. I have vessels which go into the London and into St. Katharine's Docks.

388. Are you, as a director of the London Docks, of opinion that these regulations would be injurious to the general transit of the river?—I conceive that the regulations proposed by Sir John Hall would have the tendency to drive all ships out of the Pool, generally.

389. Are you, Mr. Young, of opinion, that no such regulations as Sir John Hall proposes are necessary for the accommodation of the shipping interest of the port of London?—If the facts are proved to the satisfaction of the committee, taking care that the executive force under the authority of the bye-laws be sufficient to provide, as far as is necessary, for the safe and convenient transit of ships to the upper part of the river, what is the necessity of an application to Parliament? The next passage is with regard to the moorings with bridles.

390. Have you examined Sir John Hall's plan for the moorings?—I have not. I have an objection *in limine* to the whole arrangement.

391. The chain extends half across the river?—When ships let go their anchors, how are they to be cleared from the difficulty of ships coming up?

392. Do you think they would get foul?—I think they would; at present it is a subject of very great inconvenience.

393. Will you favour the committee with your opinion as to the mooring ships by chains, according to the plan which Sir J. Hall has projected; I scarcely feel competent to express an opinion. I think it is one of which nautical men are so much better judges,

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that I should be rather travelling out of the record. The objection as to the inconvenience of any addition to the number of chains across the river is palpable. If a collier is coming up to her berth with a strong flood-tide, she must let go her anchor; and it is a matter of continual occurrence that the anchors are getting foul of the chains. We have several nautical men on our committee whose opinions are entitled to much weight. The number is very accurately defined; the size of the ships is various; the specific number in a space is for the consideration of the committee, and the officers must see that this space is kept clear. If there were 14 ships, it might happen that 14 would fill up more than the space here given; or it might happen that they would not, according to their size. Your objection seems to be the increased expense. May I take the liberty of asking what suggestion is thrown out as to the mode by which it is to be defrayed?

394. *Chairman.* From the tonnage duties.

395. Mr. *Young.* We are looking to the period when we shall be relieved from a great portion of them. We trust the committee will endeavour to keep the expense at the lowest sum consistent with the discharge of their duty. In the present state of the commerce of the port of London, it is of the last importance to decrease every charge, and not do anything that would paralyse us. I do not know that I should hesitate in stating what my own opinion is, that it will be advisable to endeavour to procure an alteration of the existing arrangement of the Act of Parliament under which these duties are levied. I think it would be better to extend the payment over a larger space of time for immediate relief; and I consider also, that it is not at all wise that we should have to raise this large sum of money, the interest of which is to provide a fund, out of which the harbour-masters are to be paid; but let us pay in a tonnage tax rather than have to raise a fund. If it was arising out of the superabundance of our opulence it would be well; but when we are ground to the last pitch, it seems very absurd that we should raise 100,000 *l.* to provide for 3,500 *l.* a year, or 200,000 *l.* to provide 7,000 *l.*: let us provide the 7,000 *l.*, and let the charge be such as will provide for its annual expenditure.

396. The repeal of the Navigation Act having subjected you to competition with the whole world, has so reduced the freights, that every saving is of great importance?—Most unquestionably.

397. You think that, rather than throw a heavy expense on the present period of time, it would be more just to extend it?—That is my individual opinion. At the present moment we want immediate relief. When once commerce is directed into another channel, it is the most difficult thing to draw it back.

398. *Chairman.* It must be our desire, as well as our interest, to attend to the trade of the port of London as much as possible, and to avoid everything that would drive that trade away?—Mr. *Young.* The next passage provides for the channel of 300 feet being buoyed off. Now that I consider objectionable in many points; the expense, the obstruction it would cause, the continual injury. I can venture to say, from practical knowledge, that there is not one ship out of ten that come into our docks but what receives some injury on her bottom, from coming in contact with the buoys that now exist. When they are outward bound it is a very serious inconvenience. They have frequently small pieces rubbed off: if a ship is going on a foreign voyage, perhaps the worm thus gets into the bottom, and is decidedly injurious. It concludes with the removal of the shoals. The more the navigation of the Thames is facilitated the better we shall be pleased; but we entreat the committee not to give countenance to such a proposition, at our own expense.

399. Deepening the channel would be to your interest?—There can be no question about that.

400. This inquiry turns, a good deal, on whether it is proper, or whether the necessities of the port require, that 300 feet should be maintained for a free navigation; we should be glad to have your opinion upon that?—I think, as a general principle, it should. But if you say that, in all cases, the slightest obstruction to the 300 feet shall be punished, you impose a serious impediment to the commerce of the port, which is not necessary.

401. As a general rule, you would not advise us to contract the space; but you do not approve of the suggestion of absolutely insisting on it, under all circumstances?—That is precisely the opinion I wish to convey: I think that, on the whole, the bye-laws are well considered and digested. It would be a cruel proposition at once to annihilate them for the introduction of a new code.

402. Do you see any objection to an Act of Parliament requiring all coal-vessels to go into a dock?—I do; certainly. Unless they be taken into a dock without expense, I see the greatest possible objection. Even if they did not object to it, it would expose them to inconveniences which I cannot point out.

403. Have you any idea of the number of vessels that are employed in bringing coal to London?—I have not.

404. Is it your opinion that, if a free collier dock was established, there would be a manifest objection to it on the part of the coal-trade?—I would rather not give an opinion; the coal-trade are so competent to speak for themselves.

405. If the shipping were to go into dock, would it reduce it two-thirds, and would two-thirds be sufficient, compared with what is now charged on carrying coals?—It does not strike me that it would. I am at a loss to conceive why.

406. The suggestion is that there would be less detention?—I am not sufficiently acquainted with how the detention would be remedied.

407. Are you aware that there are sometimes 800 ships waiting to come up at one time?—I was not aware that the number was so large.

408. That is under particular circumstances: when vessels come home from the timber-trade they generally go for coal. I understood you to say, generally, that you as a legislator, and speaking on behalf of the shipowners, have objection to anything that tends to increase the expense?—I feel it my duty to do so.

409. Are you aware that the shipowners prefer going into dock?—I should say shipowners would prefer going into dock if they could go in without any increased charge; their property is safer.

410. The charge might be laid on the coal-merchant, the proprietor?—That is a subject I am not prepared at all to discuss; the general inference is obvious. I am one of those who find abundant reason to question the position so readily put forth, that it is quite immaterial what your charges are, as the public will ultimately pay; that general principle requires great modification in application.

411. As a member of the Shipowners' Society, have you any reason to complain of the general state of the transit up and down?—No representation of the kind has ever been made to me, or occurred within my personal knowledge.

412. You have not been in the habit of hearing complaints of the harbour-masters?—I certainly have not.

413. Mr. Wigram, have the company any reason to complain of the difficulty of ships coming into your dock?—Mr. *Wigram.* Not since the eastern entrance has been lately completed.

414. At what time was that opened?—I think in July last.

415. We wish to endeavour to ascertain what are the complaints of the directors of the London Dock Company; why they state in their letter that there is a necessity for amending the bye-laws?—Until I saw the letter last week I never saw it before. Mr. *Young.* All shipowners look with great jealousy at attempts to drive them into a dock, if they do not like to go there. Mr. *Wigram.* On the part of the London Dock Company I am not aware of any complaints having been made of the state of the river. I do not recollect to have heard of any. Mr. *Young.* I have heard of none. Mr. *Wigram.* I have not been a director long; I can only, therefore, state what I have heard as an individual.

[Mr. Young and Mr. Wigram then withdrew.]

416. Mr. *Drinkald* having been called in, addressed the committee as follows: In the first part of Sir John Hall's memorandum he says, "The penalties which are imposed by the 9th section of the said Act, to be made recoverable from the master, pilot, or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft, or boat." On turning to the Act of Parliament I find that you can recover from the owner or master. The Act is the 33d Geo. 3, c. 69, and it is the 9th clause. It appears to me that Sir John Hall is in error in that respect. I would ask the city solicitor whether he has not recovered in several instances, and whether there have not been convictions, in cases where the harbour-master has given notice?

417. Captain *Fisher.* Then the owners resided in England.

418. Mr. *Drinkald.* Notices have been given for ships to move, but they have not been told where they were to go. Sir John Hall finds fault with this; he says that they ought not to have twelve hours' notice. I say that they must have sufficient notice. I do not say that it requires that it should be twelve hours, but it ought not to be done at a moment's notice. Then he goes on, "That powers be granted to the harbour-masters to order to be removed to such place as they may direct, and, if necessary, to cause to be removed, any ship, vessel, steam-boat, craft, lighter, barge, or boat lying in the port of London between Blackwall and London Bridge forthwith, upon verbal notice." Now I do mean to say the verbal notice is a very bad notice to give, and that it should be a written notice. Then it goes on to say that they shall not "impede the navigation of the river, and especially the passage of the width of not less than 300 feet." Now that is what I say the harbour-masters of the port of London have it not in their power to do, to allow 300 feet. According to the plan of Mr. Smith he makes room for 410 vesse's. I take it that the number of vessels cannot be less than 850, and frequently above 1,000. If there is only to be accommodation allowed for 410, how is the trade of this port to be carried on? We are certain that 450 do not lay along shore; not more than from 150 to 200. My opinion is, that if 300 feet be kept in the river you would not be able to stow more in the two pools than about 400 ships at the outside; I mean the navigable river. A great deal of the space allowed for mooring ships has been taken away for the accommodation of the different entrances to the docks. The effect is, that although, with respect to St. Katharine's Dock, the Act of Parliament only authorizes them to have 600 feet, I think you will find that they have got about 1,200.

419. Mr. Alderman *Cowan.* Is there an equal excess in the other docks?—Mr. *Drinkald.* They took 600 feet; the *radius* line is taken from the centre of the gates. If they were to keep within their *radius* it would give you two tiers more.

420. *Chairman.* How is it that they have obtained 1,200 feet, when they are only allowed by law to have 600?—Mr. *Drinkald.* That must remain with the committee. The harbour-master has corrected me; I understand it is only 1,100.

421. *Chairman.* Is not this space occupied by tiers of steamers?—Mr. *Drinkald.* No; part of it is, the other is blank. There is a mooring lighter allowed to lay out of the limits. Part of it is occupied with steamers for the accommodation of St. Katharine's Dock, and no other steamers are allowed to go there except those that frequent the St. Katharine's Dock.

422. *Chairman.* You are now giving us your opinion on what Sir John Hall proposes,

and upon the 300 feet being necessary, and you consider it impossible to obtain that at all times, without abridging the room so as seriously to militate against the trade?—Mr. *Drinkald.* I am certain that the trade of London cannot be carried on, neither can vessels come up to their place of discharging, if 300 feet be given. There is not room in the river for the necessities of the trade; and I go further, there is no necessity for 300 feet; it is not required.

423. *Chairman.* From your practical knowledge on the subject, and considering the peculiar circumstances of the port of London, how many feet do you think is required?—Mr. *Drinkald.* From 150 to 200 I think quite sufficient.

424. Mr. *Howell.* If the St. Katharine's Dock Company continue to do that which they have been doing for some time, namely, bringing up against tide large vessels of 700 and 800 tons burthen, do you mean to say that 200 feet is sufficient?

425. Mr. *Drinkald.* They never attempt to bring up a ship of that burthen against tide; it is always done in the flood-tide; they run risks of losing large ships by coming up directly after high water.

426. Mr. *Howell.* I understand that such has been the practice to bring up these large vessels against tide; they are towed up by steamers, and in consequence of so doing it is necessary that 300 feet should be kept clear in the river. If they were to discontinue a practice of this kind, and bring their vessels up on the flood-tide, as all other vessels are brought up, it would not be necessary to keep a clear way of more than 200 feet.

427. Mr. *Drinkald.* I should say that on all occasions, let them be towed or not, 200 feet is as much as ought to be kept for them. The great objection is, that vessels generally come up at the top of the tide; and when the wind is at south or at south-west there are a great number running down to Limehouse Reach at high water, they run foul of the vessels which are coming up to take their stations; it is this which creates the confusion. When a large vessel is being towed by a steamer at the rate of five or six miles an hour, they ought to have the whole of the river to themselves. Is the whole of the trade of the river to be annihilated to enable a vessel of 600 or 700 tons to get into St. Katharine's Dock? Is everything else to be put aside—all the rest of the trade?

428. *Chairman.* I believe you are a considerable shipowner?—Mr. *Drinkald.* Not very considerable, but I am a shipowner; I have two ships now coming from the Mauritius. The next passage to which I would refer says, "that penalties be imposed upon all and every person who shall obstruct the harbour-master." A bye-law may be made to meet that; for this Act of Parliament gives you sufficient powers to make bye-laws. Then it is stated, "that the harbour-masters shall have the power to call in aid the officers of the Thames police, for the purpose of enforcing, when necessary, the orders or directions they may give." I object to the harbour-masters being, in effect, made police officers; to their having the power of taking people out of a ship without the warrant of a magistrate. I think the Act of Parliament is quite sufficient to bring men to their senses, without having recourse to violence.

429. *Chairman.* You think that without the intervention of a magistrate's warrant such a power as this ought not to be given to the harbour-masters, their being enabled to call in the aid of the Thames police, for the purpose of taking people into custody; and you decidedly object to such a power as arbitrary, and not necessary?—Mr. *Drinkald.* I state this to show the arbitrary manner in which Sir John Hall wishes to act: I do not think it is necessary. The next passage I would advert to is, I think, without exception, one of the worst things which Sir John Hall recommends. He proposes, "that moorings with bridles be laid down at such places, and in such a manner, between the Red-house, Deptford, on the one side of the river, and the King's Arms, Limehouse, on the other, and the London Bridge, as shall be deemed necessary and fit for the accommodation of shipping in the port of London: the stations, number of ships, &c. to be permitted to moor or make fast thereat to be limited and defined, regard being had to the free and unobstructed passage of not less than 300 feet." Now, in the first place, to moor colliers in that way, which I see laid down in the plan, would be a great public nuisance. The mooring-chains themselves would be a very great nuisance; the vessels, which are constantly letting go their anchors, and which they do sometimes in the space of a minute, to prevent coming in contact with other ships, would hook the chains. Buoys would also be a great public nuisance, and create much loss of life and property. Vessels would be constantly getting on the chains, and by this means would be very much damaged. If vessels are moored in the way described, how are the coal barges to get in and out at the ebb and flood-tides?

430. *Chairman.* Are you of opinion, as a lighterman, that they could not get out at ebb-tides?—Mr. *Drinkald.* It would delay them beyond all bounds, and it would be the means of sinking a great many craft.

431. *Chairman.* Are you, Mr. Banyon, of the same opinion as Mr. Drinkald with respect to the impracticability of the lighters getting in and out according to this plan?—Mr. *Banyon.* Most decidedly.

432. *Chairman.* You, Mr. Banyon, have had great experience in these matters?—Mr. *Banyon.* I am of opinion that the trade cannot be carried on according to the proposed plan. With respect to the buoys, you heard my opinion when I was last before the committee; they would be decidedly dangerous, both to small and large craft, and to boats.

433. Mr. *Drinkald.* The next passage of Sir John Hall's memorandum is this: "that the aforesaid passage or channel of not less than 300 feet, between Limehouse and London Bridge, be buoyed off at convenient distances, and in such part of the river as shall be deepest, and where the current or stream runs the strongest." That is the strongest objection

objection against it. Buoys would be a nuisance to all kinds of craft navigating the river. Boats would be constantly beating against them, and getting sunk; so that the loss of life and property would be very considerable.

434. *Chairman.* Do you, Mr. Banyon, think that many of them being placed in the river would be a great obstruction to the navigation, and a great nuisance?—Mr. *Banyon.* I think that a single one would.

435. Mr. *Drinkald.* The committee may remember that the London Dock Company put down a second buoy, and that was considered so objectionable that this committee insisted on its being taken away again.

436. *Chairman.* Then you have a decided objection to buoys?—Mr. *Drinkald.* Decidedly. The harbour-masters can, with the naked eye, see whether the river is in a fit and proper state. If the harbour-masters are nautical men, and know the navigation of the river Thames, which I suppose they do, their own eyes will tell them which ship ought to be moved, and which ought not. We differ very much with the coal people as to the number of vessels that are required. I am satisfied that 150 are quite capable of doing the work, and more than sufficient; but 200 sail would be amply sufficient for what is required, and not 250. They may transfer a third of their weighers of one empty ship to a loaded ship. They ought to have about 200.

437. *Chairman.* Are you, Mr. Banyon, of the same opinion with Mr. Drinkald?—Mr. *Banyon.* I am of opinion that less than 200 colliers will not do for the purpose of the trade: less than 200 will never do.

438. *Chairman.* Do you think that 50 vessels more, coming in and going out, would be quite enough?—Mr. *Banyon.* That is my opinion. You should bear in mind that perhaps only part of the cargo of a ship may be sold, and the remainder not sold. The weighers are taken away from that to go to another; perhaps there may be 20 or 30 sail which have delivered in part, and have part lying to be sold; that is a very common thing.

439. Mr. *Figgins.* Might not the coal trade get more weighers if there were accommodation for more ships?—Mr. *Drinkald.* The 150 weighers are not kept at work. There is a difficulty in delivering the quantity of coals *per diem.* Sometimes when ships come into the river, and are at work, the buyers cannot find craft to get out the coals which they have in the river; 150 would work out half as many more.

440. Mr. *Taylor.* That goes to prove that the number of weighers is sufficient for the actual state of the trade?—Mr. *Drinkald.* They are quite sufficient for the whole of the trade; if they were allowed to have craft to keep them at work, they would be more than enough.

441. Mr. Alderman *Cowan.* Is it your opinion, that if encouragement was given to colliers to do so, that they would be induced to go into a dock, and relieve the river?—Mr. *Drinkald.* I consider that the delay and impediment which would arise, as well as the extra charges which would be laid on the consumer of coals, would very seriously injure and prejudice the trade. The very best coals have been selling recently for 16*s.* 3*d.* and 16*s.* 6*d.* a ton. The public now have the advantage of the taking off the duties. The going into a dock would be a perfect nuisance. The craft going in and out would cause such delay and impediment, that there would be double the charge of lighterage, as well as the dock charge. The shipowners can now scarcely make both ends meet, and if you lay a heavy charge like this on them, what will be the consequence?

442. *Chairman.* Suppose, Mr. Drinkald, that there were free docks into which collier-ships could go without having to pay any dock charges, do you think that the coal trade would then avail themselves of such docks?—Mr. *Drinkald.* I certainly think they would not, in consequence of the delay and impediment that would arise from it. At present they are able to get their craft down in the lower end of the tide, and get up again with their cargoes, in less time than they would be able to get into these docks.

443. *Chairman.* Do you think that the delay would be so great as to cause an additional expense in the delivery of coals, provided the docks were free?—Mr. *Drinkald.* I am certain it would.

444. Mr. *Banyon.* If the committee will look to what an immense trade the coal trade is, and consider the number of craft that must be entering and going out of this dock, you will see that it would be impossible to conduct it. I have known within four-and-twenty hours 500 sail of colliers to arrive; it would be impossible to get them into a dock.

445. *Chairman.* Is it your opinion that with regard to the coal trade, it is not suited to the docking system?—Mr. *Banyon.* Exactly so. The ships are at this moment bringing coals at 4*s.* a ton freight.

446. Mr. *Drinkald.* Sir John Hall then says, "A provision to be inserted in the Bill for regulating the speed of steam-boats, between Cuckold's Point and London Bridge." Now I agree that it is very necessary to regulate the speed of steam-boats, when they are towing the vessels; for they go at such a rate, that they not only get damaged themselves, but actually risk the property of others. When they come up into very narrow water, where there are a great many vessels lying at anchor, they come up with such speed, that they are frequently obliged to let go their anchors, and the steam-boats get athwart the tide, and block up the navigation. When they have such way in them they cannot stop; and when they find themselves in error they drop their anchors, and this causes the delay and confusion.

447. *Chairman.* Do you approve of the principle of reducing the speed of steam-boats, when they come to a certain point of the river?—Mr. *Drinkald.* I am satisfied that they ought to be restricted to a certain rate of speed; the bye-laws of the Watermen's Company restrict the rate of speed to five miles an hour.

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448. *Chairman.* Generally speaking, you think that the speed of steam-boats ought to be restricted, especially when towing vessels up the river?—Mr. *Drinkald.* I think so, certainly. I have seen them towing up at the rate of six or seven miles an hour.

449. *Chairman.* When they get into such a place as the Pool, do they not frequently produce confusion?—Mr. *Drinkald.* A great deal of confusion, and a complete stoppage. With respect to the statement of Mr. Willins, I think I need not go into that, for it is particularly ridiculous; it would be only wasting the time of the committee. As a proof of what I have said respecting the towing of vessels through these narrow passages at such a quick rate, it is to be observed that we had not these complaints when the river was more crowded. Until St. Katharine's Dock was established, we never heard of anything like 300 feet. I have been in the habit of navigating large lighters with 60 or 70 tons of sugar, and only a common labourer with me: they now talk of having two men in a coal barge. There was plenty of room then, and they have now double the room to navigate which they had then.

450. *Chairman.* There were not so many ships delivered in the stream then as there are now?—Mr. *Drinkald.* There were more ships delivered in the stream then than ever there was. All the trade of the London Docks, the East India Docks, and the West India Docks, was delivered in the stream.

451. *Chairman.* But with the accommodation of these docks, is there not a greater number of ships carrying on this trade of delivering in the stream than there was before?—Mr. *Drinkald.* I do not know as to the number, the coasting trade to Scotland and other parts has so much increased; but these are a different class of vessels, and are all moored in the Upper Pool. West Indiamen could not moor so high up. It is very convenient for the small craft; the captains do not mind taking the ground if they can get room for their vessels. My opinion is, that steam-vessels ought not, for the safety of His Majesty's subjects and the trade of the port of London, to be allowed to come higher up than Limehouse, at the outside: they ought to be kept below. I mean to say, that it is not expected that ships above 200 or 300 tons burthen should come so high up the Pool. Union-stairs is quite high enough for a vessel of that tonnage. I should state that, when the bye-laws were passed, I was on the port of London committee, and I opposed them in that committee; but as matter of course I was in the minority: my practical knowledge amounts to nothing. When 300 feet was given I opposed that particularly; not only in the committee, but when the bye-laws were introduced into the court of common council, I got up in my place and opposed them as being impracticable; I have been found to be correct: it is not possible to keep 300 feet, and to give accommodation to the trade of the port of London.

452. *Chairman.* You say that it was never meant that large vessels of burthen should come up so high; the committee understood you to say, that that part is not suitable for vessels of 700 tons; if they do attempt so inconsistent a thing as to bring large ships up so high, the inconvenience which they meet with, those who come up ought not to complain of. Mr. *Drinkald.* That is my decided opinion: they create the nuisance themselves. There is a clause in the Act of Parliament, which, if it was carried into effect, I am sure would require more harbour-masters than you have at present: it is, that a vessel which has discharged her cargo shall not be removed until the harbour-master has given orders where she is to go. I beg to ask the principal harbour-master, whether, considering the coal-trade, the coasting trade, and the foreign trade, they could possibly attend to every vessel to see where she moored?

453. Captain *Fisher.* The clause has always been found impracticable, and has never been attended to.

454. *Chairman.* The committee wish to have your opinion as to the bye-laws.—Mr. *Drinkald.* I see that the harbour-masters are bound to take soundings according to the Trinity standard, and report to the committee. I remember when I was on the port of London committee, I considered that the harbour-masters had a greater number of books than was necessary; the bulk of them were useless. There is one book I should like to have kept, in which the committee should require the harbour-masters to keep an account of the number of vessels in the two Pools, and at the wharfs, every day, and the number of ships that are in each tier every day. This book being kept for the information of the committee, you would then see that these plans are absurd; that it is impossible to keep 300 feet according to this scheme of 2, 4, 6, and 2, 4, 6, 8: if you come upwards you do not get it, although you may below.

455. Captain *Fisher.* The task of numbering the ships would take up the whole of the day.

456. Mr. *Drinkald.* It would do no such thing, if the harbour-masters attend to their duty. While the harbour-master in the Upper Pool is rowing up in his boat, it is easy to count the number of ships in each of the tiers. If I can convince you that it has been done, then you will see it is practicable.

457. Mr. *Taylor.* For how many days together?—Mr. *Drinkald.* The year.

458. *Chairman.* Could you do it? Mr. *Drinkald.*—Yes; it has been done. Only last Saturday when I went down, it was with difficulty that we got through with a steam-boat. There were three or four vessels boomed off laying half over the river; there was not above 60 or 70 feet in that particular spot; it was a tier below the Perseus.

459. Captain *Fisher.* You have said if you keep 300 feet you will drive the trade away. In that part of the Pool they are a smaller class of vessels.

460. Mr. *Drinkald.* There is a great scene of confusion in consequence of not removing the vessels.

461. *Chairman.* Are you of opinion that it is practicable for the harbour-masters to keep

keep a journal of the number of ships in the different tiers, for the information of the committee?—Mr. *Drinkald.* Yes; it might be done. If they do away with half the books which they have now, and keep a register of the description I mentioned, it would answer every purpose. I was always of opinion that more than half of them might be dispensed with. I would recommend the committee to keep a regular register at their office. This part, which I spoke of before, with respect to the buoys, ought to be struck out entirely, as well as that with respect to the 300 feet. If the harbour-masters have been in the habit of giving a written notice, agreeable to the bye-laws, they may produce a copy, so that if it is not correct the committee may make it so. I remember one ship being ordered away, and it was not stated where she was to go to.

462. Captain *Fisher.* I can state to the committee, that every order that has been given has been given according to the form drawn up by the city solicitor, and approved of by this committee. I submit that a proper form should be kept. You have stated, that you were put to the expense of removing the Batavier for want of a proper form, therefore I have a printed form drawn out by this committee.

463. *Chairman.* There is a form drawn out by the city solicitor, in order that we may not be thrown out of court from informality. Some of your clerks may not have written such a notice, and such a notice as that which Mr Drinkald might have seen.

464. Mr. *Figgins.* Is the form printed, Captain Fisher?—Captain *Fisher.* It was printed in consequence of the Act of Parliament saying so, when we tried to convict. I mean it was declared to be contrary to the Act of Parliament because it was not written.

465. Mr. *Drinkald.* There have been failures according to your own statement. In the bye-laws you have two tiers, called Botany-bay tiers; you will find it very inconvenient to have tiers there; it is at the entrance to the Regent's Canal. I objected to that tier at Kidney-stairs; the ground there is very improper; it is very hard, and the space is very much wanted; the Pool is benefited by their going to this place. I do not think it is necessary to have tiers at Botany-bay or Kidney-stairs; you might find room for 200 without placing tiers in this situation. In regard to these minor tiers, one tier is left out; at Elephant-stairs, King's-stairs, Prince's-stairs, and Church-stairs, you have moorings laid down: I think if these were taken up, you would be enabled to have colliers of easy draught of water in their place. The effect is, that these moorings tend, more or less, to choke the river and to get less water. I do not know what water there is at Church-stairs, Prince's-stairs, Elephant-stairs, or King-stairs; they used to have water there for large West Indiamen. I recommend you to have the width of the river from the Lower Pool to London Bridge, taken at low water; by this you would be enabled to see what room you can give us for a free passage up the river: there is no use in taking it at high water. I am afraid some of the calculations which have been made have been made at high water, instead of low-water mark. In your bye-laws it is perfectly useless. There is a bye-law in an Act of Parliament, the 44th of the Watermen's Company, regarding rafts of timber; there you find that the size of the raft is 20 feet in width, and 60 in length, with a provision for a penalty if that is not attended to. Barges and other craft are to pass singly according to the 44th bye-law, which we are very tenacious of: they often fine men for having two crafts moored alongside. It is open for the public to protect themselves: the people are likely to be injured if the navigation is impeded: it is the duty of everybody to endeavour to prevent that generally. At Watermen's Hall we fine them 20*s.*; there are many very able and skilful men at the board which is provided by the bye-laws of the Watermen's Company. In regard to craft drifting athwart the tide, it sometimes happens when it is blowing hard that you cannot keep them straight. Sometimes three men cannot do it, particularly in the deal barges; frequently when the wind is up the river they are obliged to let them drive up stern foremost; and, on the contrary, when it is down the river, I think one man is quite sufficient to navigate a coal-barge of a moderate size. As to taking away the colliers, the Trinity-house have it in their discretion to take away the shingle which will answer for ballast; they never had any inclination to take away the mud or sand. If they were to work more in the Upper Pool, as they used to do, instead of down below, there would be more water in the Upper and Lower Pools than there is at present. When I was an apprentice, the ballast-lighters used to work in the Upper and Lower Pools, and did not go so low as they do now; they now go to Woolwich and Blackwall Reach; they come up with the flood-tide, going into the West India Dock. If they worked in the Lower and Upper Pools, and worked till dead low water, they would not be able to save the tide to the West India Docks. The great majority now work below, and find it more convenient; they do not lose so much time as they otherwise would. If they are to have the exclusive privilege, they ought to work where they are most wanted. On the failure of the Thames Tunnel, I had no doubt it arose from attempting to carry it across the river on ground which had constantly been disturbed. When they wanted water at Wapping and Church Hole, there were twelve or fifteen lighters working directly across where the Tunnel was to go; and the moment the Tunnel got beyond the lighter-road it burst, because the ground was so loose. The craft had been working there, and putting their spoons in 12 or 15 feet; they made it loose; if they were to work the mud, they would find their way into the holes and wash the gravel away.

466. Mr. *Figgins.* Do you not think that the Trinity Corporation would attend to a representation, if it were made to them, that it would be beneficial to the river for them to work in this spot?—Mr. *Drinkald.* I have no doubt they would attend to it, if such a representation was made to them; namely, to work in the Upper and Lower Pools. It was only last Saturday that I saw what occasions me to observe that, when the people are clearing away an accumulation of mud, they ought not to be allowed to throw it into the river to accumulate; they ought to take it away. Just now, above Union-stairs, a con-

siderable quantity of mud has been taken from off the shore and thrown into the river; it drifts down and fills up.

467. Mr. *Bridge.* I think you said that 200 feet would be sufficient for the river, when the ships were crowded down below; might not that number be increased, and yet leave a sufficient navigation in the Thames?—Mr. *Drinkald.* That would depend, in a great measure, on the number of coasters in the river. If there were not a large number of coasters in that part at the same time, you might have a few more in.

468. Do you not think that less than 300 feet would be sufficient to keep the river navigable?—I stated that I thought 200 feet quite enough. I recommend not to put any number of feet in the bye-laws, but to leave it to the harbour-masters to keep a fit and proper way, as I am sure they will.

469. Is it your general opinion that the navigation of the river Thames for the last year, or more, was as good as it was six, eight, or ten years ago?—No doubt it was just as good as it was then.

470. Do you think it is better, or worse?—I think we have a much clearer Pool kept than we used to have, and more pains taken.

471. Do you not think there has been more complaint latterly than was usual?—I have not heard of any complaints, except from one place.

472. Do you consider our present bye-laws quite sufficient for all purposes?—I think they want altering; you have some orders that the harbour-masters cannot carry into effect.

473. Do you think it is necessary to apply to Parliament for such summary or arbitrary powers as Sir John Hall suggests?—I think you might keep a clear channel in the river Thames without going to Parliament.

474. Do you think it at all necessary to go to Parliament for fresh powers?—I am decidedly of opinion that the worst thing the committee can do is to go to Parliament for powers to make bye-laws for the regulation of the port of London. That the present bye-laws require alteration is certain; it is unpleasant to the feelings of the harbour-masters to be told to keep 300 feet clear way, and not to be able to do so.

475. The object we have in view is a perfect revision of all the bye-laws.—As far as the Watermen's Company are concerned, I desire to say that, in making your bye-laws for carrying on the trade of the port of London, in which, of course, the harbour-masters will assist you, if they are sent to the Watermen's Company, we will put our remarks on them: most of the men who constitute our body are practical men.

476. Of all the gentlemen who have been examined, not one has come to the point, as to this 300 feet. On what evidence did the port committee act when they came to the resolution that there should be 300 feet?—There was no evidence before the committee that I heard, to authorize the committee to give the 300 feet; it was in direct contradiction to all the evidence that was heard; the bye-laws were passed in contradiction to the evidence that was given.

477. Mr. *Banyon.* Before I go, I think I may trust that you have not a wish to carry these oppressive and arbitrary suggestions into effect.

478. Captain Large, Captain Rule, and Captain Turner, commanders of several steam-vessels, were then called in, and addressed as follows:

479. *Chairman.* You, gentlemen, have had a great deal of experience in navigating the river Thames, as to the state of the Pool, and the navigation from Blackwall to London Bridge; the Committee wish to be informed of what you have observed as to the state of the obstruction, whether it be very serious; and if so, they would be glad to receive any suggestions from you as to the mode of keeping the passage more free and unobstructed.—Captain *Large.* I never have found much difficulty in getting up and down the Pool, except when the colliers are lying very numerous at the lower part of the Pool, and then we can seldom get past, in consequence of their number.

480. Are you aware that the bye-laws for regulating the port of London require that a space of 300 feet should be kept clear for the navigation?—I am quite aware of that.

481. From what you have observed, is it at times considerably less than that?—Very much less.

482. Is it so much as seriously to obstruct the navigation up and down?—Yes; a vessel has been going up and down the Pool when there was not more than 80 feet, touching the ground on one side, and the tier on the other side.

483. So that you find it difficult to navigate even a steam-vessel with safety?—Yes; even a steam-boat. That was at low water.

484. What water does one of your boats draw?—On the average about seven feet.

485. How often will such a circumstance occur; once a month?—It depends on the wind; if it blows strong, and the wind is north, or north-west, it will be so.

486. Have you seen the general trade much inconvenienced in consequence of that congregated state of the navigation about this place?—Yes, very frequently; we come up and down ourselves with ships, and we get in between the tiers.

487. Are you engaged in towing large ships up to St. Katharine's Dock?—Yes; some of the largest that have been there.

488. Do you ever come up against the tide with them?—Very seldom; it is a very rare thing to do so; when they have got a head-way below we are obliged to do so, we are obliged to come up against the tide then.

489. In towing large ships, at about what rate of speed do you go through the water?—About two miles an hour.

490. If you are coming with the tide, what is your rate of speed?—That is the greatest rate you can get with a ship of that burthen, through the water.

491. If the tide is coming two miles an hour, what is your speed?—Nearly four or five miles an hour.

492. Do you slacken the more you come into the Pool?—Yes, of course; we should otherwise have no method of stopping our ship; the ship is just under steerage-way, and not more than that.

493. In bringing up ships of 700 tons and upwards, through the Pool to St. Katharine's Dock, do you find it very difficult; is the access very difficult?—I have found it very difficult indeed.

494. Was that under peculiar circumstances, or is it frequent?—It is generally difficult with a loaded ship, from the number lying in the tiers, more particularly the Cole-stairs tier and Church-hole.

495. You are aware that before the use of steam navigation, ships of that burthen never came so high up the river?—Yes.

496. And that it is only by the aid of steam power that they can get so high up?—You might do it with a wind and a clear Pool.

497. Generally speaking, would it be inconvenient to bring such ships up without their being towed by steam-ships?—Yes.

498. It has not been usual to bring so large a ship so high up?—It has been ever since that day; since St. Katherine's Docks have been built.

499. Such large ships must go into the docks?—Yes; they cannot discharge in the river.

500. The result of what you observe is, that the space left for navigating in the Pool is frequently so contracted and narrow, as to occasion great obstruction and nuisance to the trade generally; is that so?—Yes.

501. But only at particular times of the tide?—No; almost at all times. As I before observed, from the number of ships in the Lower Pool, if it is blowing hard from the north or north-west, the navigation must, of necessity, be impeded.

502. Have you turned your attention to the width of space that it is necessary to preserve; the 300 feet; and do you think that, according to the bye-laws, it is necessary?—I do not think so.

503. Would a less width do if it was strictly kept?—I do not think it would. Even the steam-boats go out of the stream, and they are very near 200 feet, supposing they are athwart you of the length of the bowsprit. I have seen a steam-boat athwart the tiers at one end, and aground at the other.

504. One of the large steam-vessels getting athwart is a rare occurrence?—Yes, it is a rare occurrence; but it very frequently occurs with us.

505. Then, when it does happen, it quite obstructs the navigation?—It quite obstructs the navigation of every other vessel. Supposing it be a barge or a ship, if it takes the ground, of course it must let go its anchor.

Captain *Rule* was then examined as follows:

506. You have heard what Captain Large said as to the contracted space in the Pools appropriated to the purposes of navigation creating very great inconvenience and obstruction to the trade generally; do you agree in opinion with what Captain Large has said?—Yes; I have gone down between Globe-stairs and a whole tier at the latter part of ebb-tide, when there has not been more than 60 feet between low-water mark and the tiers.

507. Then you have been in extreme danger of going aground?—On one side smelling the ground, and on the other going close to the tier.

508. You, of course, as well as Captain Large, sometimes tow large ships up?—Yes.

509. You have heard what Captain Large said as to the speed being slackened, so as to give the vessel steerage-way; is that your practice?—We slacken speed according to the circumstances; we see what state the Pool is in.

510. Is it your practice to tow vessels against tide through the Pool?—It is, with a fair tide, in general.

511. In such a state of things do you not sometimes come athwart a vessel that is going down?—We mostly tow them up with the tide.

512. Do you ever do it when the tide is ebbing?—Very seldom.

513. Then you come in contact with vessels dropping down?—We tow them up frequently against the tide.

514. Do you meet with the same inconvenience in going down?—Yes, certainly.

515. What is your opinion as to the width that is desirable for a free passage, considering all the circumstances of the Port of London?—I should think nothing less than 300 feet. In the Lower Pool, sometimes our stern is near touching the tiers on one side, and we are close against the bank of the river on the other side.

516. Is the river narrower at this point?—No, I think not. There is a point running off a small distance, but there is a long bight on the opposite side.

517. Then it is more dangerous to be pinched for room there?—More dangerous there than in any other part of the Pool.

518. You must be aware that, for maintaining this 300 feet of space for the navigation, the effect, strictly speaking, is to lessen the room for tiers of ships, and that, in that way, the trade is injured. The committee are anxious to obtain the best information; keeping in view as their object the maintaining of a sufficient space for the purposes of navigation, and at the same time giving the greatest possible accommodation to the trade. I should be glad to know from practical men the width actually necessary for the free passage of the

navigation: you have said you thought 300 feet is the least?—I think nothing less than 300 feet would do. I have been stopped in the lower part of the Pool an hour and a half; on going down the 3d November last, when the tide flowed at 10 o'clock in the morning, the lower part of the Pool was blocked up for two hours, and nothing could pass from Flood-stairs to Globe-stairs.

519. Was that from vessels being foul of each other?—Yes; from the tiers stopping the passage.

520. The tiers being so overcrowded as to contract the space for navigation so much that vessels got foul of each other?—Exactly.

521. And the obstruction of an hour and a half which you experienced, proceeded from that cause?—Yes.

522. Was that at a particular time of the tide above low water, when all the vessels are coming up?—About half-flood; the ships sailed up with a strong wind from south-west. Then they heave in stays to drive athwart, and one ship blocks up the way.

523. Have you observed at times an immense quantity of coal-ships in the river?—Did you ever meet with any serious obstruction from the colliers being detained down the river?—In Blackwall Reach we have frequently been stopped for an hour in our passage up, by the number of coal-ships loading and unloading; the light ships drifting down, and the loaded ships lying at anchor.

524. Your greatest obstruction is from the lighters, is it not?—The lighters are a very great obstruction. Sometimes there are 250 sail of craft lying straggling all over the river till half-tide, fastened together with a rope.

525. Do you not know that it is against the law to fasten them together?—Yes; a man is sometimes an hour and a half in getting a mile through this immense quantity of craft, which are principally coal-craft; they lie in all directions; it is almost impossible for any thing to get past.

526. Do you find that the general obstruction caused by the coal-craft is the greatest nuisance?—Yes.

527. *Chairman.*] Captain Turner, you have heard what these gentlemen have said about the state of the Pool, and the obstruction in the river; do your observations accord with theirs?—Captain *Turner.* In point of the navigation being stopped, from Blackwall to London Bridge, it often occurs from vessels going where the best water is. A large vessel being towed by steam, or sailing, naturally wants to get into a good berth, and she cannot go there on account of the colliers taking up that berth. When they come to Cuckold's Point, they heave their ship athwart; instead of twelve ships being in a tier, I have counted sixteen, seventeen, and nineteen at a time; when a large ship comes up with a heavy draught, it is impossible for her to get into a berth, in consequence of the navigation being impeded by too many lying in a tier.

528. The tiers are too crowded to allow a sufficient space for navigation?—Yes.

529. And you have met with considerable obstruction in consequence of that?—Yes; I have met with a very great deal of obstruction from so many ships being in a tier.

530. Are the ships that are detained below suffered to lie straggling about the river, bringing up whenever they please, or is there any regulation?—I do not know that there is any regulation. I remember the Essex coming up this winter; she touched the ground at Blackwall Point, ran foul of a brig, and carried away her figure-head. There was not room between the shore and the brig for the Essex to come up.

531. *Chairman.*] Captain Fisher, is there no regulation about these vessels below?—Captain *Fisher.* Yes; the colliers when detained are generally berthed according to their draught of water, and they are regulated in tiers below till there is sufficient space for them to come up into the Pool. It is looked into every day; if any vessel is lying in the way, she is moved into another place as soon as the wind and tide will permit.

532. Are you in the habit of going to and below Blackwall?—Not below Blackwall; I have been down to Blackwall by the steamer.

533. When you find the vessels berthed in inconvenient situations, do you order them to be moved?—I always order them to be moved. The harbour-masters have my particular directions to see that all the space is clear; and if any vessels cause obstruction they are required to be removed, and are removed.

534. *Chairman.*] Captain Turner, with regard to the space to be kept clear for the navigation, do you agree in opinion with Captain Large and Captain Rule that 300 feet is necessary?—Captain *Turner.* Yes, I think it is.

535. Do you think if it was reduced to 200 it would produce great inconvenience?—It might do so for large ships or steam vessels which are of great length. If an Irish or Scotch vessel comes into the Pool she takes near 200 feet; if she be a brig, she will take 150 from her boom-end to her jib-boom end. If a vessel lets go her cable she is apt to take the tier or the ground with 200 feet; with 300 feet she would go clear.

536. You do not think 300 is too much?—I do not.

537. Do you think it little enough?—Yes.

538. That is the result of your observation and experience as a practical man going up and down the river?—Yes.

539. Supposing that buoys were placed so as to mark the line on both sides of the river, describing the space of 300 feet, without which no ships were to be tiered; what is your opinion as to the buoys being an obstruction or nuisance to the navigation?—They could

could be no more a nuisance than the ships, so long as they give us the 300 feet clear. I cannot say that the buoys would be any inconvenience.

540. Is it not an exceedingly awkward circumstance for a steam-vessel to go over a buoy?—Yes; but if we are left 300 feet clear, we do not want to go over the buoy.

541. But you have not always day-light to come up in?—No, we have not.

542. Do you not think that if buoys were placed in the river it would be injurious? We are speaking of buoys, as marks to describe the line.—I beg pardon; I was mistaken.

543. Do you not think if a copper-bottomed vessel was to go over one of them that it would be injurious to her?—Yes, I think it would. To show the inconvenience of a buoy, I would remark, that in towing a ship from Blackwall we drew the buoy over one of our stays; we worked the kedge, and broke the hawser, and we hauled out the kedge with a rope: if the buoy had gone over the wheel, it would have torn the kedge and injured the paddle box.

544. If buoys were put down for no other purpose but to mark the lines on each side of the space kept for navigation, do you think that they would be so injurious as to countervail any good they might do?—I think it would be an injury, rather than an improvement.

545. What do you say to that, Captain Large?—I am of the same opinion.

546. And what do you think, Captain Rule?—I also think so.

547. *Chairman.*] Have either of you, gentlemen, anything to suggest as to the number of ships to be allowed in the river?

548. Captain *Turner.*] If the number of ships in the river were confined to twelve in a tier, we should then be able to have about 300 feet clear space.

549. Captain *Rule.*] I think that 140 sail of ships might be moored in the Pool very easily, and not a greater quantity. I should begin with the five tiers from the Regent's Canal to Cole-stairs tier, with 15 ships in a tier; then, on the south side of the Surrey Canal, I should have five or six ships in each of the tiers at King's-stairs, Rotherhithe-stairs, and Foundling-stairs. Some of the tiers from Union-stairs require reducing. There is as much obstruction in the upper as in the lower part of the Pool. There is room at Deptford for more than 100 sail of ships to be moored.

550. Then you would suggest, that what we cannot get in width we should get in length, by sending them further down?—The 140 sail might come into the Pool; the others might go further down: there is plenty of room down at Deptford.

551. Would that increase expense; or might it be done in one tide?—They might go with the ebb-tide, load, and come back with the flood.

552. But in speaking of the craft that fetch the coals, would not the greater distance they had to go tend to the greater obstruction? We have understood that this description of craft caused great impediment to the navigation.—There will be a little inconvenience in their going so far.

553. Would there not be increased expense by having the ships so low at Deptford?—All these ships would not be at work at the same time.

554. You say that you think the coal-craft ought to be kept in a regular line; could you undertake to keep 300 sail of coal-craft in a regular line?—I think they could be kept with their heads to the westward.

555. What do you think of a stouter and safer description of wherry being insisted on by law, as people complain that you put them in great peril?—Since the march of intellect has brought steam-boats into being, of necessity you should have safer boats.

556. But they say that you swamp coal-barges?—It is only when coal-barges are overloaded that a steam-boat is likely to do them any injury.

557. How near the water's edge have you seen them?—From three to four inches.

558. If wherries were as large as coal-barges, would that be an excuse for sinking them?—I should think not. I cannot understand how the Watermen's Company have laid down the rule to measure wherries. A wherry at Gravesend is not allowed to carry more than the same number of people as a wherry at London Bridge; but the Gravesend wherry could carry twice as many; yet the boats in London are measured on the same principle.

559. If such wherries as are used at Gravesend were in use as high up as London Bridge, would there be the peril from steam-boats that there is now?—Certainly not.

560. What do you think of the Greenwich skiff?—I think the boat ought to be built lower, rather lower in the floor head, but that is a very safe boat

561. Do you all concur in opinion that 300 feet is as little as ought to be preserved?

562. To this question the gentlemen severally answered—Quite as little.

563. And that the serious obstructions and impediments in the navigation are the consequence of the tiers of colliers being overloaded?—Yes.

564. Especially at the point you call Cuckold's Point?—Yes.

[Captain Large, Captain Rule, and Captain Turner then withdrew.]

565. Captain *Fisher* was examined as follows:

566. Were there so many complaints of obstruction in the river before St. Katharine's Dock was built?—I do not think we had one in six months.

567. Who do the complaints generally come from?—They generally come from the St. Katharine's Dock; nobody else but them.

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568. Are you of opinion that, if St. Katharine's Dock was not situated where it is, that less than 300 feet would be sufficient for all purposes of the trade of London?—Certainly.

569. It is only since St. Katharine's Dock has been in existence, and the extra space required to bring up large ships, that there has been this hue and cry for 300 feet?—We never heard of a complaint prior to these docks being made.

570. Did the London Docks never make any complaint?—Never.

571. Are you aware of the letter that has been sent to Mr. Woodthorpe?—Yes; but that is not in the shape of a complaint; I had to speak to Mr. Cock, and he told me it was not intended in the nature of a complaint.

Friday, 8 *March* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

A letter from Mr. Cousens, second harbour-master, was read as follows:

572. Gentlemen, Greenwich, 8 March 1833.

Having been allowed to peruse the evidence given by the gentlemen in the coal-trade, and others, as well as the memorandums laid before your worshipful committee by Sir John Hall, in order that I might make any remarks that might occur to me, I beg leave most respectfully to state, that in my judgment the purpose contemplated by those gentlemen is not to be accomplished by stipulating that a clear passage of 300 feet (or even of 200 feet) shall at all times be kept in the Pools, or that a certain number of colliers or other vessels shall be placed at the mud tiers to lay aground, or to go into other docks or canals, for that must generally depend on the wishes of the owners thereof, and the quantity of accommodation required in the river there by vessels in the home trade, as also upon the state of the weather, winds, tides, &c.

What appears to me to be advisable is, that the harbour-master on duty (or more properly the principal one) should have full power to make such arrangements as under existing circumstances may be best adapted to accommodate the shipping resorting to the port, without showing partiality to any particular interests, and prescribing the number of vessels to be moored at the different tiers (distinguishing those at their own anchors from those at the mooring-chains), so that they may lay afloat, and at the same time maintain as free a passage as circumstances will allow, and which (when the different trades are fully engaged) will seldom exceed the clear space of, at low water, from 170 to 200 feet of navigation through the Upper as well as through the Lower Pool.

I observe it is stated that, under the existing regulations, the owners of the vessels are alone liable to the penalties for the disobedience of the captains of ships to the orders of the harbour-masters, but beg to observe, that I have never failed (when followed up) in getting my orders obeyed by the master or person in charge of the vessel, when I gave them specific reasons for their removal, although it was attended with much trouble and delay in getting a conviction before a magistrate; I therefore submit, that a more summary method of proceeding should be pointed out in the bye-laws, as our duty changes from upper station to lower every 24 hours, rendering it quite impossible for the three junior harbour-masters to follow their orders up by being thus shifted, or neglecting the river duty.

I speak thus confidently to your worshipful committee, having for the last six years kept memorandums of my orders given to the shipping, and have frequently, for the last three or four years, measured the distance kept in the Pools for navigating, and also registered the number of vessels at the tiers there and below, and where 300 feet space has been always observed on the stations. I have also kept an account of the places where the vessels have lain properly, and where improperly moored, at the same time noting the chains not in use, and can give the aggregate amount of the whole number of vessels which required the usual accommodation on both stations, extending, according to the bye-laws, from London Bridge to Bugsby's Hole, a distance of upwards of six miles, and which return I am ready to lay before your committee, if required.

Should the bye-laws be altered, there will be then some ground to hope that the inconveniences complained of will be removed, so far as circumstances, and a proper attention to the accommodation of the shipping in the home trade, will allow; and I beg here most respectfully to observe, that although there are upwards of 20 different dock and canal entrances situated between London Bridge and Limehouse Hole, requiring almost daily a free and unobstructed passage to and from the Upper and Lower Pools, as well as to and from the numerous wharfs, tiers, and quays, yet the only serious complaints have been made by the St. Katharine's Dock Company, although most of the vessels bound to the places above alluded to had to pass and repass the stations to which those complaints refer; and in fact it will be found that the principal damage done on the river has arisen not from the crowded state of the tiers in the Lower Pool (for there has been scarcely ever more than 220 colliers up there since the year 1828), but from other vessels being under weigh at the time referred to, and which vessels had as much right to be there as those bound up to or from either of the upper docks, and in most of the cases that came under my own observation more right, since they were going up or down with the stream, and claiming only the usages observed from time immemorial when navigating vessels in the Pools before the introduction of steam-boats; to which I have to add, that vessels navigating against the tide are bound to give way to vessels going with it.

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Having thus briefly stated the ideas which have occurred to me on reading the evidence, I beg to add, that I shall be happy to wait upon the worshipful committee to give any explanation that they may require.

I have the honour to remain, Gentlemen, your obedient servant,
William Cousens.

To the Worshipful Thames Navigation and Port of London Committee.

573. Captain John Fisher, principal harbour-master, delivered in to the committee a list of books kept at the harbour-masters' offices, relative to the harbour-service of the Port of London, which was read as follows:

574. An Account of the Books kept at the Harbour-masters' Offices, St. Katharine's and Greenwich, and by whom kept.

The whole of these books have been found necessary, approved of, and ordered by the committee.

Upper Station.

Minute-book	kept by the harbour-masters.
Order-book for shipping	kept by the clerk.
Office letter-book	ditto - ditto.
Ledger for shipping	ditto - ditto.
Lord Mayor's and committee's order-book	ditto - ditto.
Board-book	ditto - ditto.
Principal harbour-master's monthly report-book to the committee	ditto - ditto.
Principal harbour-master's order-book	ditto - ditto.

Lower Station.

Minute-book Order-book for shipping Ledger for shipping	kept by the harbour-master on duty.

Each harbour-master has a memorandum-book for his boat.

Friday, 15 *March* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

Edward Tickner, Esq. in the Chair.

[*Copy from Mr. Gurney's short-hand Notes.*]

575. A deputation from the coal-trade, consisting of Messrs. Barchard, Cloves, Horne, Smith, and Bentley, having been called in,

576. The *Chairman* addressed them as follows: Gentlemen, when last we had the favour of your attendance on a meeting of this committee, the meeting was but of a preliminary nature, and it was understood by all parties, that after having minutely considered the documents referred to us, you should have an opportunity of coming before the committee again. We have given you an intimation that the committee would meet to-day, in order to give you that opportunity. Since we last had the advantage of your assistance you have sent in a plan for mooring colliers, by which you appear to find out sufficient room in the river for all the purposes of your trade, leaving a free passage of the width of 300 feet for the purposes of general navigation. The committee are quite ready to hear anything you have to say, in addition to what you stated when you were here before. Allow me to ask you whether you have read all the evidence which has been taken here?—Mr. *Barchard*. We have.

577. *Chairman*. And have you read the harbour-masters' report on your plan?—Mr. *Barchard*. In drawing the plan which we set before you, we have endeavoured to conform as strictly as possible to the remark of the harbour-masters, who stated that they must, under every circumstance, have 300 feet clear water-way. Without inquiring into the propriety of that, but taking the absolute necessity as the principle on which we were to act, we have endeavoured to find room, without inconvenience, as we believe, for the whole number of ships which we think necessary for the trade: 250 is the whole number from first to last. In doing so, we are quite aware that some alteration of the water may become necessary, that is to say, with regard to keeping certain colliers in certain places. We have also recommended the laying down two fixed moorings, for the purpose of giving a fixed position to the first of the ships in a particular tier; so that the tier of ships may not contract the passage which it may be thought right to keep open between the London Dock, in the one instance, and the Regent's Canal in the other. We do not think Sir John Hall's plan at all [illegible]; we are quite satisfied that the present plan is better than Sir John Hall's was the

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the bridles and chains. We are of opinion that, with some alteration of the water, and if the Episcopal Chapel, which occupies a large space, were removed, the space to be allowed for colliers would be much increased, and the 300 feet passage might be kept, without inconvenience to any persons who may have occasion to come up the river. This is the principal point we have agreed on. We think, if our plan were adhered to, more or less, that it would keep the river perfectly navigable, and allow all the ships that require it to come up to the very inconvenient situation in which these docks are placed. We are really inclined to say, that those docks have come to the nuisance. After going to the House of Commons and stating what they require and propose, for the purpose of getting ships into their docks, they take a great deal more space than is given by the Act of Parliament. We have reason to know that that part of the evidence which was given before Parliament, was for the introduction and use of a certain description of vessels, and that these were vessels of small tonnage; whereas, now they seek to get into their docks vessels of very large tonnage; thereby endeavouring to get rid of all the old and legitimate use of the river by the colliers; for there has never been any mode so proper for delivering colliers as in the stream.

578. You are aware that part of the evidence given to Parliament to support the case of the St. Katharine's Dock, went to have the vessels delivered as high up the river as possible for the convenience of the merchants and trade of London. There is a great deal of evidence strongly given to that fact, in order to make out a case for admitting vessels so high up the river. I remind you of this, in consequence of the observation you made, that those docks have come to the nuisance?—The evidence went to the fact of their bringing small vessels up the river, not large vessels.

579. Do you speak from an examination of the evidence, or from recollection?—From a general impression at the time; I have not looked over the evidence.

580. Then you have not read the harbour-masters' report on your plan for mooring colliers?—No, we have not.

581. Would you wish to have it read now?—We did not ask for any evidence beyond what appeared before you on that day.

582. The report of the harbour-masters, dated 27th February 1833 (307), was then read.

583. The harbour-masters have suggested that 200 ships, coal-laden, is quite sufficient to be moored in the Upper and Lower Pools for all purposes of the trade; 150 to be at work, 25 to be in readiness for work, and 25 light vessels mooring off. Now if accommodation, by the removal of shoals and other contrivances, can be found in the Pools for 200 vessels, coal-laden, what is your opinion as to how that would affect your trade in the present state of the trade, whether you can do with that number?—We are quite of opinion that, in the present state of the trade, 200 ships would not be sufficient for the supply of London. In the present mode of delivery there are 150 ships constantly at work, 25 going down and 25 preparing to work. A number of ships will occasionally sell one-fourth, a half, or three-fourths of their cargo, and are unable for some days after to sell the remainder; consequently, these ships are kept in their station in the Pool until the other part of their cargoes can be sold. There are 150 constantly at work, independent of those ships which have been partially at work, and have not yet completed their delivery; consequently, 200 is not sufficient for the general purposes of the trade. At times we have not more than 200, when some of the ships are moving to the upper parts of the Pool towards the Tower, &c.; but on the whole I do not think that less than 230 or 240 would be sufficient.

584. Do you expect that vessels would be constructed of a small draught of water to carry large cargoes, on the principle of the Humber keels, in order to pass through the bridges and deliver their cargoes higher up?—I should think not to any extent.

585. If vessels of that description were in course of construction in the north, you would have heard of it?—I am not aware of the construction of vessels of that kind, to any extent, that will affect the delivery of coal-ships.

586. Do you think that a mode of sending coals to London in ships of that description, in order to deliver them higher up the river by passing through the bridges, will be adopted to any extent?—I should think not; it has been found generally, that large ships deliver their cargoes at less expense than small ships; the expense of sailing and of clearing a large ship is less per ton than a small ship.

587. If ships could be taken into dock at a small expense, no doubt the ship-owners would be at less risk. The wear and tear of anchors and cables, the damage by drifting from moorings, would be less in the docks than in the stream. If they could be taken into dock at a low rate, how would that affect your trade; how would the docking of colliers militate against the peculiar nature of your trade?—I do not know that, in the general way, any great difficulty would arise from the docking of colliers; but we can hardly have an average in the general way in the coal-trade. At one time we have only five, ten, or twenty ships, but if we have a lay of wind, we get from 200 to 300; sometimes they arrive all at once, and if a large fleet of colliers arrive immediately after the want of coals, we probably have to send down next day as many as 1,000 craft. No plan that we are aware of could be constructed to give facility to that immense number; the number sent down is very great, they are of all descriptions, from the long west-country barge carrying 100 tons to the small lug-boat of only seven tons; which, added to the number of ships brought in at either end, would create a difficulty in getting the craft into dock and hauling the craft in still water to the side of the ship. They now in loading depend entirely on the stream; the barge is carried down by its own impetus, and made fast to the vessel; as soon as she is loaded she is cast off, and drops below the ship with little exertion or difficulty, and then waits the return of the tide to come up again.

588. Then

588. Then you depend on the impetus of the tide to propel your craft?—From the weight of those barges, 30 to 40 tons, guided by one man, it is impossible to manage them except by the tide. A few days ago, when, from the state of the wind, the market was shortly supplied with coals, a large fleet came in, and part of the ships were absolutely sold in the course of the day, and were delivering their cargoes before the evening: in a dock we do not imagine that this could be managed: we think that such an immense number of craft as were used upon this occasion could not be got across a dock of sufficient magnitude for these ships to go in without a great loss of time, and that great difficulty would arise in getting them out of the dock after they were loaded, in consequence of its being still water, not influenced by the tide, and the barge being only influenced by the strength of the man or men that managed it.

589. Then if craft were to go into docks, it would take up much more time than it does at present, and occasion greater expense?—I am quite of opinion that it would: we should be obliged to increase the number of barges. At present a man leaves the wharf in the morning with the tide, goes down to the ship, gets his cargo, and comes up again with the turn of the tide. If he were to go into a dock, unless he got away in the first part of the ebb-tide, if he was at all late with the tide, he would not get into the dock during that tide; if she were loaded and came out, she would not get out in time to go up anything like the height in the river that she now does. It is a common thing for craft to come from Putney, to load and go back in the course of two tides.

590. From your knowledge of the docks as they at present exist, are you of opinion that there is sufficient room for you to work collier ships with an additional number of craft in the river?—Certainly not.

591. Would you prefer sending your craft down as low as Deptford Reach, for instance, to going into dock; supposing it was found necessary to place tiers of colliers in Deptford Reach, would you prefer sending your craft down there to sending them into dock?—Of the two evils I should hardly know which to choose: during a considerable part of the year the craft could not live in that broken water. There is one dock at present, the Regent's Canal, open to colliers, but no colliers go in there if they can possibly help it; a case happened a few weeks ago, in which a person with myself had to supply a large consumer of coals; the person had to deliver a large quantity from a ship lying in the Regent's Canal, but he said he charged 6*d.* per ton extra for going into the dock to fetch them out.

592. But in one tide could you not take the craft as low as Deptford Reach?—I do not think the short distance would be so great an obstacle as the broken water to which they are exposed.

593. Would that oblige you to construct a description of craft capable of bearing the broken water?—I doubt very much whether craft could be constructed but at great expense to bear that broken water; the craft is at present constructed to suit the banks of the river, to float on the river with large burthens, and if brought on shore, to lie safe and easy when dry. A gentleman near me, Mr. Smith, has mentioned to me that he lately lost 9*d.* per ton on coals, because the ship was lying in the Regent's Canal: they sold for 9*d.* per ton less than the same coals sold for that were lying in the river.

Mr. *Smith.* The ship had lain there all the winter, there was no insurance on her, and I was compelled to find merchants as well as I could; almost every one refused me; they would not go into the canal. I had to wait till I found a merchant whose wharf was on the Regent's Canal, and I sold the coals for 9*d.* per ton less than the same coals sold for in ships that were lying in the stream.

594. If tiers of colliers were placed at Deptford, would you be able to navigate the craft with one man?—I think not.

595. Mr. *Cloves.* When they were about constructing the docks at Blackwall, the evidence on the part of the gentlemen who wished to construct those docks was produced to prove the preamble of the Bill. Upon that occasion I suggested to the counsel on the part of the coal-trade to put this question to the witness: "What is the most prevailing wind of the year?" The answer was: "The wind from the south-west." It was proposed that the opening for the docks should be close to the upper part of the City Canal. I then got the counsel to inquire how these vessels could be got off shore during the prevailing wind of the year; the witness said that he thought it impossible for it to be done: that will be the case in navigating them from Deptford.

596. Supposing that, on account of all the other trades connected with the port of London, we could not possibly find accommodation for more than 200 sail of collier ships in the Pool, what would that oblige you to do; have you ever contemplated what that would constrain you to have recourse to?—We are quite of opinion if colliers were placed lower than they now are, or in a dock, that in either of those situations we must sacrifice a part of the price to get the cargo sold at all.

597. Then the cargo would not sell for so much if it could not be delivered in either of the Pools?—Decidedly not.

598. Your opinion is, that the colliers are delivered with greater facility, and considerably cheaper, as they are now delivered in the Pools, than they could be by any other contrivance?—Most decidedly; we calculate particularly on this point, as to the ships. Our cargoes are of great weight and great bulk, and little value; the expense of delivering one cargo will be one-twentieth of its whole value; in round numbers we may say it is 9*d.* per ton; and that, in 17*s.* or 18*s.*, will be one-twentieth of its whole cost.

599. You think that it would cost one-twentieth of the value of the cargo if these ships went into dock?—Yes; it would be that amount of absolute loss to the ship; the coals would sell for 5 per cent. less.

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600. Can any of you gentlemen tell the committee whether the greater proportion of the coal-ships are capable of shifting without ballast?—The greater proportion are.

601. Do they take in their ballast in the Pools?—The majority of them do; a great many go down to the wharfs.

602. But some take in their ballast in the Pool?—Some do, certainly; it does not occupy so much time as you imagine.

603. Is it not the habit, Captain Fisher, for vessels to go down to Limehouse Reach to take in ballast? Instead of their going to the ballast-wharfs, might they not be ordered immediately to go to Limehouse Reach, and take in their ballast?—Captain *Fisher.* They go to Duke's Shore, and when ballast is scarce many of them go down to the chalk-works at Purfleet, and take in their ballast there.

604. Do you allow them to stay an indefinite time?—The harbour-masters are ordered to expedite their removal. It sometimes occurs that a ship only sells three-fourths of her cargo, and then she has to wait two or three days before she sells the remainder; there is perhaps not a demand for coals, or there may be an imaginary price between the ship-owner in one instance and the coal-buyer in the other; all these circumstances transpire.

605. Are you able to state the greatest number of part-sold ships that have ever been in the river Thames at any one time?—I should say sometimes 60 or 70.

606. Mr. *Taylor.* These gentlemen, representing the mercantile part of the community, as far as the coal-trade is concerned, could they suggest to us, as they seem to object to go into a dock, any mode by which the trade may be accommodated, still leaving a proper transit in the river?

607. *Chairman.* That they have endeavoured to do before, in the plan that is now on the table. We need not inform you, gentlemen, that the great object of this committee is to take care of the trade of the port of London: first, in maintaining the navigation free as far as is possible, which if not done, the trade of the city of London is very materially injured, and the value of all the wharfs and warehouses on the river side, to a considerable distance up the river, is affected; that is the first and essential thing, which it is the duty of this committee to look to. The next is to accommodate the trade to the utmost possible extent, maintaining the navigation free; and your trade increasing continually, as it is, than which no trade is more important that comes into the port of London, is the principal cause of the difficulty we labour under. The committee expect you will co-operate with us, to the utmost extent of your power, in maintaining the navigation free, not only accommodating your own trade, wherever acommodation can be found, but all other trades that come into the port of London. Therefore, I come to you again with the question, whether you absolutely require more than 200 coal-laden ships in the coal-trade to be accommodated in the Upper and Lower Pools?—Mr. *Barchard.* I do not think that under any consideration we can do with less than that number. I am not prepared to say that we cannot do with one or two less than 246 or 250; but at most periods of the year that number would be required. I should say that in spring and autumn, when large fleets come in, that number is required.

608. Do you not remember near 900?—We never had anything like that number there at one time.

609. Mr. *Barchard.* We beg to ask, whether the principal complaints to this committee of the state of the navigation of the river have not chiefly proceeded from the St. Katharine's Dock, and whether from the London Dock, which is an old dock lying in the midst of the collier Pool, any complaints have been made?—*Chairman.* The gentlemen from St. Katharine's Dock have complained; but in the evidence which has been given you will find that almost all parties join in complaining of the obstruction to the navigation of the Pool; except the evidence of one or two gentlemen, they all go to the necessity of maintaining about 100 yards free passage for navigation; most of the statements have been very strong upon that point.—Mr. *Barchard.* Notwithstanding the length of time the other docks have been in existence, although we have frequently heard complaints of a ship lying badly, or some remark made at the moment, yet we have never heard of any general complaint from them. In falling in with the views which you have stated, we are indebted for the consideration you have given to us, and we shall endeavour to take care of the trade of the port of London, and at the same time take care that our ships are in a state of working in the river. It has been suggested that tiers might be put lower down than Botany-bay or Kidney-stairs; although the ground is hard there, and we do not consider it an enviable berth for ships, yet we must put them there to meet the remarks made by the other trades.

610. Mr. *Cloves.* According to the harbour-masters' plan, they intend to take away from us the three upper tiers on the south side, which tiers were always granted by the bye-laws for the use of the coal-trade.—Captain *Fisher.* If these tiers had been used as the bye-laws state, the vessels that have been in the habit for centuries of loading and discharging there we must have sent to Blackwall, Greenwich, or Deptford, which would have been a great inconvenience to the parties. We considered that they ought to be protected as well as others, and having been there so long they seemed to have a prior right.

611. Mr. *Cloves.* Owing to the building of London Bridge, and the removal of the old bridge, it has been clearly shown that three more tiers can be formed on the south side below London Bridge, which have never been occupied before, in consequence of the press of water forming shoals there, and these three tiers would belong by right to the coal-trade. —Mr. *Chapman.* Would not that affect the right of the proprietors of the old wharfs?

The

The ground near to old London Bridge is part of the ground which the committee have to sell.

612. Mr. *Taylor*. Captain Fisher, what number of moorings is the coal-trade deprived of in consequence of not having these three tiers?—[Captain Fisher explained, from the plan, that the space would contain about 50 ships.]

613. How are they now occupied?—By vessels in the Irish trade, and a large class of vessels from the Carron with heavy iron.

614. It has been suggested by Mr. Cloves that, consequent on the removal of old London Bridge, these tiers of vessels may be arranged so as to accommodate the coal-trade to that extent.—The vessels that usually lie in these tiers are generally vessels of a large draught of water; there is not a sufficient depth of water higher up the river to take these vessels, and if they are moved they must be sent lower down.

615. Mr. *Cloves*. Why are the proprietors of these wharfs to be favoured more than any other wharf-proprietors on the banks of the river? Some years ago the Navigation Committee thought proper to remove us from certain other tiers, for the accommodation of the London Docks, and why should the coal-trade be called on to give up three more?

616. If we found it practicable to give you two tiers, which are calculated to contain 28, in addition to the 200 you suggested, do you think that would answer the purpose?—If you would give us three we could perhaps manage it.

617. If 28 coal-vessels could be accommodated at Church and Elephant-stairs, in addition to the 200 provided for by the harbour-masters, would that be sufficient for the purposes of the coal-trade?—Mr. *Smith*. You must take care to have the duty much better done than it is now; we must have the ships regularly placed.——*Q*. What do you mean by the duty being better done?—*A*. That the harbour-masters must have further powers.

618. Mr. *Horne*. The other day, when there were very few ships in the Pool, the first ship that came up went wherever it pleased, the others took their station alongside, and they take up more room than enough. We want the harbour-masters to make them keep at a proper distance. If the committee will give us power we will ourselves appoint a man, and bind ourselves to keep the Pool in order.—Captain *Fisher*. I deny that; I am frequently there myself. There is an order of mine, which has been read to the committee, giving positive directions to the harbour-master on duty to be there on the flood-tide to berth the whole of the colliers, and to remain there until they are berthed.

619. Mr. *Cloves*. I beg to make one or two remarks, which will prove that we can get 240 ships. Supposing there are two tiers with 28, I have observed very lately that the harbour-masters have allowed 26, tide after tide, to remain there (the number now is 10), would the committee allow us to increase it four? We may then leave the two upper tiers for the purpose of other trades.—Captain *Fisher*. I think that 18 can lay there with ease.——*Q*. Can 18 lay there and still preserve the water-way?—*A*. Yes, certainly.——*Q*. What would be the passage left free if there were 240 ships?—*A*. Mr. *Cloves*. Very near 400 feet.——*Q*. Will the alteration of the channel on the north side make it more difficult for the navigation of ships?—*A*. There will be not so considerable a space left.

620. Mr. *Cloves*. I trust the committee will allow us to have half of what we were granted before. According to Captain Fisher's own showing, if we extend the tiers a little we can have a dozen more, which will make up the 240. I trust we have proved that that number is necessary to be furnished by the committee to the coal-trade.——*Q*. Although Captain Fisher makes out his orders very correctly, still they may not be always executed. You say you would prefer appointing a man at your own expense, to assist in executing Captain Fisher's orders?—*A*. We do not wish to assume any power; we should like to have the power of appointing a person who could look after the Pool, and be in communication with Captain Fisher, to point out any neglect on the part of those who execute his orders.——*Q*. And be under his orders and direction?—*A*. And be under his orders and direction.

621. Is there not plenty of accommodation in the St. Katharine's Dock for colliers?—They will not receive them there.——Mr. *Smith*. I asked them last winter to take in a couple of ships for me, and their answer was they would not.

622. Mr. *Cloves*. The London Dock is the same; the same question was put to them, and the same answer received; but the Regent's Canal is open. While I am speaking, I would observe, that what would create 10 per cent. on coals, would not amount to 5*s*. on other vessels going into dock, on account of the small value of coals, as compared with their weight and bulk.

623. Do I understand you to say that in future an officer, under the command of the principal harbour-master, should be specially appointed to regulate the mooring of ships in the Pool?—Yes.

The following letter was then read:

624. Gentlemen, Platform Wharf, Rotherhithe, 7 March 1833.

We have just been informed that application has been made to your Worships by the coal-trade, for the colliers to be moored in tiers from King's-stairs to Hanover-hole tier, which would very materially interfere with the convenience of the vessels which usually bring their cargoes of corn, Baltic produce, &c., to our wharfs and warehouses. As the above-mentioned part of the river has, for a very great number of years, been occupied by general traders, we rely on the consideration and justice of your Worships, that we and

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the trade in general will not be subjected to so great a loss and hindrance as the removal of the vessels, usually discharging for our premises so low down the river (as must necessarily be the case in the event of such mooring of the colliers taking place) will occasion.

We are very respectfully, &c.

For *John Schneider* and Co., *J. Heydelbach.*
John Yardley, owner of Granary near Prince's-stairs.

To the Worshipful the Navigation Committee of the Port of London.

625. Mr. *Cloves.* I beg to make a remark upon that letter. It will be in the recollection of Captain Fisher, that not within a very long time, all the corn-vessels have been delivered at Limehouse Hole, because they are of great value, and craft at a greater expense are employed than those used in the coal-trade. With a cargo worth 200 *l.* or 300 *l.*, they can afford to pay for two or three lightermen; while, with our 35 *l.* or 40 *l.* worth, we are obliged to manage it as low as we possibly can. It will be in the recollection of Captain Fisher, that no corn traders are allowed to deliver in the Pool.—Captain *Fisher.* Ever since I have been on the river, the vessels that have delivered at Limehouse Hole have been large vessels, principally in the timber-trade.——*Q.* Mr. *Cloves.* But along the Mill-wall?—*A.* Captain *Fisher.* The water is so very shallow there that nothing but vessels of a light draught can lie there. When the port is open for foreign corn, it is principally used by small foreign vessels.

626. Are the committee to understand that 200 coal-vessels, including the Newcastle traders and those accommodated in the Regent's Canal, are not sufficient for the purpose of the coal-trade in the port of London, and that if 30 or 40 more could be accommodated that would be sufficient?—Mr. *Cloves.* Exactly.

627. *Chairman.* If you will take the trouble to read the evidence, which you can have access to at the Town-Clerk's office, and to look at the plans, from what you have heard to-day, and from what you may learn in reading the evidence, you will be able to amend your plan and put it in again.

628. Then the 40 above the 200, is to provide for the part-sold ships?—It is.

629. Do you think there are generally so many as 40?—It is sometimes 60, sometimes not 10, we can hardly draw an average; these numbers only occur in spring and autumn.

630. Before the vessels go to the east-country trade, do not they make one coal voyage, and another before they lie up for the winter?—Yes.——*Q.* And that gives rise to the great influx of coal-ships at these two periods?—*A.* Exactly so.

631. Mr. *Barchard.* As far as relates to the coal-trade, it would be a great improvement if they were obliged to take a more decided spot in their moorings, if places were appointed for them by marks in the river; if they were bound to take those places, and if there was a man on the spot to direct their mooring, no inconvenience would arise to the trade generally, and great accommodation would be given to the coal-trade. I am quite aware that we cannot ask the harbour-masters to be always in attendance on us, for they have likewise other service to attend to; but the number of ships arriving in this trade is so great, that I think the business cannot be well done unless one person is appointed for the purpose. I am quite authorized to say, as far as I can collect the opinion of the gentlemen around me, that they have no objection to find an officer for the purpose, acting under the directions of the harbour-master, receiving suggestions from him, having only the collier Pool under his care, and giving up his time entirely to directing these ships where they ought to go.

632. Allow me to ask you, whether a great many of the cargoes of the ships are not sold to go down the siver?—Some are, not a great many.

633. Do a large proportion of the cargoes proceed up the river?—A very large proportion.

634. Could not these vessels be classed in the Pool according to the destination of their cargoes?—I believe it would be impossible; sometimes half of the cargo of a ship is bought for the purpose of being taken down the Lea River, and the other part is sold to a party who sends it up to Putney or Wandsworth.

635 Are the gentlemen in the coal-trade aware of any part of the river that could be excavated, so as to enlarge the river at that point?—We are quite of opinion that the neighbourhood of Cuckold's Point might be very much excavated to enlarge the space.

636. Mr. *Bentley.* Great accommodation might be afforded from the Surrey Canal upwards, and also from Cuckold's Point.——*Q.* Allow me to ask you, Mr. Bentley, whether you have heard that it is in the contemplation of the ship-owners to construct a sort of vessel to carry the largest possible cargo, with the smallest possible draught of water, with flat bottoms, on the principle of the Humber keels, to deliver coals up above bridge?—I think not. It might be possible to do it to a small extent, but the coal-trade can never to any great degree be carried on in any ships but those that are concerned in the Baltic and the American trade; a ship constructed on the principle you mention would be precluded from entering into any other trade.

637. You have not heard that it is in the contemplation of the ship-owners to construct a vessel of that description for the coal-trade?—I did hear of one person attempting it, but I believe he has given up the idea.

638. You are of opinion that this mode of conveying coals to London and delivering them will not be carried to any great extent?—Certainly not.

[The deputation withdrew.]

The following letter was then read:

639. Sir,

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639. Sir, Commercial Dock-office, 106 Fenchurch-street, 1 March 1833. No. 1.

The Commercial Dock Company having considered the question now before the Port of London Navigation Committee, respectfully request that the evidence they have received may not have the final determination of the committee until the Commercial Dock Company shall have an opportunity of stating their objections to the plan proposed. Proceedings of the Common Council.

I am, Sir, &c.
R. H. Marten, Deputy Chairman.

To E. Tickner, Esq., Chairman of the Port of London Navigation Committee.

Messrs. Marten and Gould were then called in.

640. *Chairman.* Gentlemen, you are aware of the nature of the inquiry which this committee is now engaged in, and as the interests of your dock may be affected by it, and as you may be able to give the committee some information in aid of the object they have in view, the committee would be glad to hear you on the subject. It was and is their wish not to come to a final determination until you have an opportunity of stating your objections to the plan proposed and the printed documents which have been transmitted to you.

Mr. *Gould.* I am much gratified on being allowed the opportunity of attending this committee. We think that the alterations may, though we are not certain they will, have some effect on the entrance of our docks. It appears that some of the principal objects recommended by these gentlemen who are applying for an alteration in the arrangement of ships in the Pool is, that vessels should be laid from Cuckold's Point to the entrance of the Commercial Dock. We are aware that wherever tiers of vessels are placed, the bottom of the river is scoured, and the deposit so removed by the effect of the tide is carried further on. The Commercial Dock entrance is in a little bight, where we are afraid the deposit would be carried. It might also run a deposit where the Commercial Dock buoy now is, which would not only impede the actual entrance of the dock, but reduce the depth of water for vessels which now only occasionally lie at the buoy. It is only in summer that we lie there much, but if you take the vessels away, the depth of water will be reduced. This is the principal thing that strikes us as appertaining to our particular locality; the general question we have considered likewise, and we are of opinion that no case has been shown to prove that there is a necessity for making the alterations which are recommended by some parties. We think, in the first place, that the river Thames ought to be considered as such, and we consider it emphatically as the Port of London. We consider that we have no right to interfere to force vessels into a dock; from beyond the memory of man, and the oldest records, the river has been considered the Port of London; and whoever drives away the vessels from the river is inflicting an injury on the port and the owners of the vessels. It may be very useful to have the river clear, but it does appear to us that the river is clear enough, under the present regulations, for all that is required. Where the tiers have been taken away from the entrance of the London Dock, we are of opinion it has been done with a great deal of judgment; the navigation has not been hurt by it; and, considering the state of the Pool, as many vessels as are allowed there may remain, without the least interference with the navigation; we were always of opinion that the recommendation given to your committee, as to mooring ships with bridles fore and aft, would be exceedingly improper, and would very much interfere with vessels that come into the river, particularly the colliers, as it would increase the difficulty of discharging their cargoes. The present mode allows the barges to come up, and if the duty of the harbour-masters is performed according to the bye-laws, it is sufficient to keep the river in a state of perfect thoroughfare. We do not understand the compulsory or penalty clause, as to a penalty being enforced against the master, pilot, or other person in charge of the ship; we think that is not clear, nor do we know how the penalties are to be enforced, because, if the person having charge of the ship is liable to be taken out of her at a moment's notice, the ship is placed in jeopardy. More than that, we think the recommendation that a ship should be obliged to unmoor, and change her station immediately on notice given by the authorities, would be highly dangerous. Ships, when once moored, whether by accident or not, cannot always move until the tide returns to the state it was in when they came up; we think 12 hours quite short enough. A captain may be driven by accident beyond the station in which he intended to moor, and when he comes alongside a tier, although it may be full, it may be matter of imperative necessity for him to make fast, and if he is compelled at once to start from there, it may be at a state of the tide when he will not only endanger his own vessel, but all the vessels coming up the river: we think the recommendation would be exceedingly prejudicial to all parties concerned. To return to our peculiar circumstances: even as the dock is at present placed, there is such an accumulation of mud and deposit, that it costs the Company every now and then 500*l.* to clear the dock; and we fear the alteration would materially increase the deposit at the actual entrance, as well as the expense of keeping the dock clear.

641. You apprehend that, if tiers were arranged above your dock, the scouring of the tide, from the nature of the bottom there, might occasion a silting at the entrance of your dock?—We have that fear.

642. Does the tide set against it so that it sets off again in the direction of the buoy?—Yes.

643. You apprehend if a greater quantity of mud were driven down from under the tiers of ships, that the flowing of the tide in that direction would deposit a silt?—We think it

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it might. Our first fear is, that silt would deposit itself at the dock entrance before the water strikes off.

644. You stated that you had a strong objection to the mooring tiers of ships by bridles and chains; have you seen the particular plan of Sir John Hall?—We have not seen this plan, which does not seem to interfere in the manner we presumed it would have done. I confess that the peculiar objection I had to the mooring of vessels does not stand so strong, when I see the manner in which it is to be accomplished. We proceeded on the Report, which does not explain what we now see.

645. Having regard to this, that as ships must drop their anchors before they can get into the tiers, do you not think such anchors would be in danger of hooking on the chains?—I should think they would be very dangerous indeed.

646. Mr. *Marten.* All the bank about here [*describing it*] has been created by there not being so great a set of the tide here as there is there. Whenever you come to place tiers of ships along here, the wash under these ships will take away all this mud, and we shall probably get our very dock blocked up.

647. You have a very strong objection to a proposition in the printed document, subjecting the master or pilot to a summary process, inasmuch as, if he is to be taken out of the ship, it may occasion some inconvenience?—That is our view.

648. If vessels were required to be moved in less than 12 hours, you think they would be required to do that which is impracticable or dangerous?—We do. I can mention a case in point, which came within my own knowledge, not in the River Thames, but elsewhere. The captain of a ship made himself exceedingly obnoxious, and, under the Passenger Act, he was arrested at Newfoundland; he was taken from the ship, and put into prison, but no advantage was gained; there was nobody to navigate the ship; he laughed at them, and they were obliged to put him aboard the vessel again, and let him sail with the people, who had the cholera, for Canada, although he had rendered himself seriously obnoxious to an Act of Parliament.

649. What is your opinion of the necessity of maintaining at all times, so far as ships moored in tiers are concerned, a passage of not less than 100 yards for the purposes of navigation?—I think it would be very useful, but I do not see the actual necessity for so great a width.

650. Have you considered what width, as a minimum, would be absolutely necessary?—Having to go to the Dock Committee, we are in the constant habit of going up and down the river, and from my observation of the river, as it is now kept, there is no cause of complaint; or if there be complaint, the bye-laws appear to me to be sufficient to remedy it, if exercised with due vigilance.

651. Mr. *Gould* further examined. You are engaged in the Canada trade?—Yes.

652. The chief article of import you have is timber, and your ships go into the Commercial Dock?—They do.

653. Practically, in the carrying on of your business, you cannot sustain any inconvenience westward to the entrance of the Commercial Dock?—We are not concerned simply in the import of timber; if we were, we should not occasionally have letters from Sir John Hall, asking our ships to go into St. Katharine's Dock. We import flour, ashes, &c., and send out general cargoes of goods. Some of our ships go into the London Docks, and our masters are aware of the difficulty of going so far up. Hitherto we have never gone in at the Shadwell entrance.

654. Most of your ships go into the Commercial Dock?—Most of them; at this moment we have two in the London Dock, which have come up from the Commercial Dock.

655. Are the committee to understand that the evidence you have given to-day is the result of practical experience, from your observations in passing up and down the river?—Certainly.

656. You have stated a case of hardship inflicted on the captain of a ship with passengers to Canada, calling at Newfoundland?—I do not consider it a case of hardship to the captain, but of inoperative enactment in a law.

657. You found on that an opinion, that, to have a penal clause respecting a captain acting in contravention of the orders, rules and regulations which the committee may adopt would be inoperative, or hard on the captain; and your opinion is, that it would be more effectual if the owner of the ship was made liable?—You did not rightly understand me. I did not speak of regulations which this committee might adopt, but those that are adopted.

658. As a ship-owner, your experience must have acquainted you with cases of great hardship to owners, where they are totally without the means of protection; I allude particularly to cases in which the captain, officers or crew have been guilty of smuggling, unknown to the owner of the ship. Have you not, as a ship-owner, felt it a great hardship that the punishment should chiefly fall on the owner rather than on the actual offender? As respects the proposed penalty on the captain rather than on the owner, would not that be attended with consequences equally severe to the owner?—The taking from the ship the only person who has the charge of it would be much greater. If it be a ship-keeper (it does not matter what the party is), the taking him out at a time when the ship is compelled to move *instanter* is, in effect, leaving the ship without hands. It is necessary to carefully provide for a ship coming to her proper moorings. If the person in charge is taken out of the ship, and the ship is set adrift without sufficient hands to manage her, she may run foul of other vessels, and must go back again.

659. Do you not think that the harbour-masters are persons acquainted with the management of ships, and that they would take care that the ship should be put in a place of security,

security, before they might find it necessary to take a person by the collar and bring him before the Lord Mayor?—I cannot tell.

660. If that was not the course, do you think the harbour-masters would be doing their duty to the public?—I cannot tell what is intended to be done, but nothing of the sort appears in the papers we have had the opportunity of examining. I should be sorry that a ship of ours, which had come to a tier to hang on and make fast, should be trusted to the harbour-master to take her down, without waiting till the tide was in a proper state.

661. Would you not think it better for you that the party should be visited with a pecuniary fine, than that the fine and punishment should fall on the captain direct?—I think it is a choice of evils whether we are to be so, or whether we are to run the risk of having the ship injured by at once attempting to do that which, in many cases, is exceedingly dangerous. We have a very large ship in the Commercial Dock, and if there was such an imperative clause as this, we should be afraid of moving her from the Commercial to the London or St. Katharine's Dock, without having a special crew to take care of such a large vessel; even in warping her up the other day she broke her hawser.

662. Your extensive concerns must have led to transactions at different out-ports of the kingdom. I wish to ask if there are not regulations at those out-ports, with penalties for the breach of them, and whether any great case of hardship has been thrown on you in consequence of such regulations and penalties?—We never had a vessel delivered at the out-ports, and do not know what regulations may exist there. I am not sufficiently acquainted with them to answer the question, as I can in the case of the port of London.

663. As a ship-owner, do you consider that the bye-laws, as they now exist, are less onerous to the ship-owner than if they were made summary by taking the captain from the ship, subjecting the party to the inconvenience of the person in command of the ship being taken away for an unlimited time?—I do not know which way you mean to alter the bye-laws. If the party in charge is to be made liable for these penalties, or taken up for a misdemeanor, then much greater injury will arise than if the owner should be made answerable for the fault of the captain.

664. You prefer the law making the owner answerable?—For that special fault only.

665. *Chairman.* It is not suggested that power should be given to have the master or pilot forcibly taken from the vessel by policemen, but that these parties should be made liable to the penalties as well as the owner, and be proceeded against in due course of law. —Mr. *Marten.* There is a penalty unless you move *instanter*, and it is impossible that you can move *instanter*; time and tide wait for no man. If there is a penalty for not moving *instanter*, and you cannot, how stands your law?

666. Has not the ship-owner always protection for himself by making the captain, in his engagements, liable to the penalties?—It is general to do so, but there is a great difference in owners. Some are so very strict, that they make their captains answerable for every piece of timber, according to the bill of lading, while others allow a certain latitude.

667. Mr. *Marten.* Supposing you endeavour to obey this command to move a ship *instanter*, and much damage is done in attempting it, who is to pay for that damage; must the owner pay for it?——*Q.* In that observation, you assume that the harbour-masters are totally ignorant of their duty in the management of shipping?—*A.* I assume no such thing.

668. Mr. *Taylor.* If the master or person in charge is to be made liable instead of the owner, in what way is the penalty to be recovered?—Captain *Fisher.* I should go to the city solicitor, and lay an information against the parties at the police office.

[Messrs. Marten and Gould then withdrew.]

The following letter was read:

669. Gentlemen, London, 13 March 1833.

We, the undersigned, occupiers of wharfs above London Bridge, and otherwise interested in the navigation of the River Thames, understanding that you have at present under your consideration the better regulating of the same, and the securing to the trade of London a free passage, beg leave respectfully to certify that, in our opinion, a channel of not less than 300 feet is necessary to secure to our traffic an uninterrupted passage for coasters capable of passing through bridge, but more particularly for our lighters and dumb craft; and we therefore solicit that you will take such measures as will effectually procure for us that indispensable object.

(signed)

Thompson & Forman.
Jacob Wrench & Sons.
Walkers, Parker & Co.
R. & R. Thornton & West.
Jukes, Coulson & Co.
J. Savill, Nevill & Druce.
John Brown.
William Hammond.
James Man.
Parker & Foster.
Allen Mason.
R. & W. Crawshay & Co.
Daniels & Payne.
Pro *Verran & Sons, James Budd.*
Pascoe Grenfell & Co.
T. & C. Hood.
Bradly & Benbow.

To the Worshipful the
Navigation and Port Committee of the City of London.

The following letter was read:

670. Sir, Trinity House, 12 March 1833.

I have it in command to acquaint you that, pursuant to the request of the Thames Navigation and Port of London Committee, conveyed in your letter of yesterday's date,

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Mr. John Hall Dix, Mr. William Richard Perry, Mr. Edward Smith, and Mr. Joseph Voy, river pilots, have been directed to attend at Guildhall on Friday next, the 15th instant, at two o'clock in the afternoon, for the purpose named in your said letter.

I am Sir, your most humble servant,

To Henry Woodthorpe, Esq. *J. Herbert.*

Messrs. Dix, Perry, Smith, and Voy were then called in.

671. *Chairman.* The committee would be glad of your opinions, the result of your experience in piloting ships up the river, first, on the state of the navigation in the Upper and Lower Pools; and, secondly, your opinion as to the width of passage absolutely necessary for the purposes of navigation. How long, Mr. Perry, have you been a pilot?—Mr. *Perry.* Twenty-four years.

672. Have you had much experience in navigating ships up the river?—Yes, very great.

673. What is the state of the Pools with regard to navigation?—At times it is very bad indeed, at other times more clear; but I should say it might be kept a great deal clearer than it is, by proper management. I have seen the middle of the tiers quite open; if those spaces had been looked to they might have been filled up. I have at times come up with only 150 feet when I had not room to turn the ship round, and I consider that a ship of 600 or 700 tons ought at least to be allowed 300 feet for passing and repassing.

674. At times you have found the Pool so obstructed that it has been impossible to navigate large ships?—Yes, with safety.

675. You have seen it at times with a passage of not more than 150 feet?—Not more than that.

676. Has that occurred recently?—I think it was in the latter part of the month of October that I brought up at the lower part of the Pool.

677. From your experience in navigating ships, is it required by the circumstances of the trade that there should be 300 feet of passage for the purposes of navigation?—It is.

678. Is that your decided opinion?—Quite so, for a ship to pass in safety. If I bring up into the Pool a vessel of 600 tons, and have to let go the anchor, a kedge will not bring her up; and if you let go your bower, you have not room to swing round.

679. Is that from want of proper regulation, such as there being a greater number of colliers in the tiers than there ought to be?—Yes.

680. The great obstruction is in the Lower Pool?—Yes; we never hear of any thing in the Upper Pool causing an obstruction.

681. Were you coming up with the tide in October last?—Yes.

682. In tow of a steamer?—Yes.

683. It perhaps does not occur above one day in a fortnight that these obstructions take place?—It may be not.

684. Not above one day in a month?—I have come up several times, and found it in that state; there are times, in particular, when there are such great obstructions that we cannot turn our ship round in the Pool.

685. I believe ships above 300 tons did not come so high up until the opening of St. Katharine's Dock?—Not until the opening of that dock.

686. Then if there be any difficulty, they have come to the difficulty?—Some years back I have brought up ships of 600 tons to the London Docks.

687. A great part of the obstruction arises from ships of a larger burthen than formerly coming so high up the river as the St. Katharine's Dock?—Yes.

688. (By Captain *Fisher.*) Have you not found difficulty when large fleets of colliers have been detained at Greenwich and Blackwall?—When coming to the East India Docks I have found it so, but not when towed by a steam-boat.

689. Considering the river as the Port of London for the accommodation of colliers, coasting vessels, timber ships, and all other traffic, do you not consider that upon the whole it is as clear as may naturally be expected?—Under existing circumstances it is.

690. Is it your opinion that it has improved within the last few years, or otherwise?—I should rather say it has improved.

691. The serious obstruction, when the passage is contracted to 150 feet, is not frequent?—No, it is not.

692. But occasionally there is difficulty in getting through the Pool?—At times; it is not generally so.

693. Do you consider, if the colliers were more quickly removed, it would improve the Port of London?—There is nothing that obstructs us in the Pool after passing the colliers at Limehouse Reach.

694. Can you suggest any thing that would tend to make the access to the Port of London, generally speaking, better than it now is?—I should say, that the allowing only a certain number of vessels in each tier, would give more room.

695. Provided there were no tiers at all in the river, it would be still better to get to St. Katharine's Dock?—Of course: but that we cannot expect.

Mr. *Dix* examined.

696. You are a river pilot?—I am

697. How long have you been so?—Twenty-three years last June.

698. And have had considerable experience in bringing ships up the river?—For thirty-five years.

699. What is your opinion of the state of the Pool, as to the obstruction of the navigation?—

gation?—That it is very badly conducted. I do not know any port in the world that is so badly conducted as the Port of London.

700. You find considerable difficulty in navigating ships through the Pool, which you attribute to the want of good regulation?—Certainly I do.

701. What is your opinion as to the necessity of compelling ships to moor in tiers, so as not to contract the passage for navigation less than 300 feet?—I would not allow the ships to moor indiscriminately, in the lower part of the Pool. I would divide them according to the draught of water.

702. My question is, What is your opinion as to the necessity of maintaining a free passage of 300 feet?—It is quite little enough, and it is very necessary it should be maintained.

703. Do you think that, with better regulations, it might be maintained, without injuring the trade?—I am sure of it.

704. And yet find berths for the number of ships that are now in the port?—I would find berths in the Lower Pool for 200 sail of colliers, and leave 300 feet space.

705. Are you acquainted with the port of Liverpool?—No.

706. You have heard the observation of Mr. Perry; he thinks there is an improvement in the port; do you concur in that opinion?—Certainly not: he says he has only seen the Pool in this state for one day; I have seen it so for a fortnight.

707. Comparing it with what it was seven years back, do you think it is any better?—I do not think it is any better.

708. Do you think that trade has increased?—I think the coal-trade has; but speaking generally, it has not.

709. How often in the course of a month do you pass through the Pool?—It depends on circumstances; sometimes only once or twice, sometimes eighteen or twenty times.

710. The *Chairman* explained to the witness Sir John Hall's plan of the bridles and chains.—Mr. *Dix*. I should think it a very bad plan indeed.

711. The object is to keep the vessels from being blown into the middle of the river?—You could never make the colliers moor better than they do now. No people in the world moor colliers so readily, and in such small compass, as they do themselves.

712. You think the present plan of mooring cannot be improved?—The chains would be in a bad situation for vessels going up and down, and would be greatly in the way of ships letting go their anchors. You can only make fast two ships to one buoy, and that would be a detriment to ships mooring and unmooring.

713. You think the anchors would be likely to get foul of the chains?—They would be very much in the way; we find them so lower down, about Rotherhithe and Deptford.

714. You think the present mode of mooring ships by their anchors far better than the plan of fixed moorings?—I should say a great deal better.—Mr. *Voy*. I concur in that.—Mr. *Smith*. I think it is a very bad plan indeed.—Mr. *Dix*. Where will you get an opening to get your craft in? There is a stoppage everywhere. How are you to get in between the two ships?

715. You think they offer great obstacles?—Very great indeed.

716. Would it not be an injury to have a great number of buoys in the river, inasmuch as they would upset boats, and injure the copper of vessels going on outward voyages?—You cannot keep too clear of buoys.

717. Have you ever known a vessel to have her copper injured on an outward voyage?—Yes; I have swung over a buoy and smashed it all to atoms.

718. Then an increase of buoys would be an injury to ships passing along?—It would. There are two laid down at Blackwall, and they are the greatest nuisance we have to complain of.

719. (By Captain *Fisher*.) Your vessels are generally for the docks, are they not?—Yes.

720. There have been a great many pilots lately licensed by the Trinity House; do you think that ten out of twelve of these men are competent to bring a vessel up properly?—That is a very delicate question.

Mr. *Voy* examined.

721. YOU have heard the questions put to the other pilots with regard to the actual obstruction of the navigation in the Pool; what has been your observation?—At times it was very bad certainly. No longer than last Sunday the first tier was uncommonly good, but the second laid two vessels further out, which made it a very bad Pool.

722. Do you think that it might be kept in a better state than it now is, by different and better regulations?—I think, with good attention, it might be kept better, provided a certain number of vessels were only allowed in a tier. The outside tier should have a black board with white letters in her fore rigging, stating that no vessel should moor outside of that tier; they sometimes come in the night.

723. As soon as they have got their complement of vessels, there should be a board on the outer one to intimate that no other vessel could moor there?—Exactly so; then a man infringing would have no excuse.

724. From your experience in navigating vessels through the Pool, do you think that 300 feet is necessary?—Most assuredly.

725. Do you think if there were a less space the navigation would be inconvenienced?—If you could always have a calm or a clear Pool you might do with less. I am in the habit of coming up with a vessel 135 feet long, without a bowsprit; it takes 20 fathom of cable before we can bring her up. There were as large ships lay there formerly when there were no docks. Forty years ago vessels of 500 or 600 tons lay there.

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726. Then it is not a new thing, consequent on the construction of docks, for vessels of such burthen to come up so high?—Large West-Indiamen used to lie there.

727. Do you think the docks have occasioned a larger number of vessels of greater burthen to come up than used to do?—I should suppose it may induce the larger sized vessels to come up: so long as there is water they can go to Windsor.

728. Have a much greater number of large vessels come up since the docks were made than before?—I cannot say.

729. How long have you been a pilot?—Twenty-three years next June.

730. And accustomed to the river all your life?—Born on it, almost.

731. Are you acquainted with the port of Liverpool?—No.

732. When the Pool is clear, and there is 300 feet free passage, do you find it easy to navigate large ships?—I think it is. If the navigation is 300 feet, there is length enough to drive with a foul wind. Before we had steam, I have been three days heaving a ship down the Pool, stern foremost. I am well satisfied with 200 sometimes. A foul wind is the best wind we can have; for a fair wind brings us too soon into danger.

733. Since you have had steam-vessels, there is less necessity for a great width?—We want the same width. If there were 300 feet, a man taking 100 feet could go up, and I could come down; if there were only 200, one of us would be obliged to stop.

734. With a steam-vessel you can keep in a more straight line than when you depend on the wind?—The gentleman seems to mean that I can keep directly in the line of the steam-boat; he thinks, perhaps, that the breadth of the steam-boat is all I want for my ship; but a vessel may clear the steam-boat, and may clear the hull of my ship, yet it may not clear the yards.

735. With a steam-vessel, 200 feet is almost equal to 300 if you have to depend on the wind?—With a steam-boat, 200 is a very good width; but if I have not got steam, my ship is obliged to lay athwart the tide, and 200 is not enough.

736. (By Captain *Fisher*.) If there were 500 feet in the Pool, and large fleets of colliers were coming up with an easterly wind, would you not find a difficulty, and can that difficulty be avoided?—No, not at the moment.

737. You must give them time to get out of the way?—Certainly; it is like so many people at a play; when one moves on we all get seated.

738. Have you not been in the habit of towing up vessels, both to the London and St. Katharine's Dock, against the tide when other vessels are leaving the port downwards?—Yes, certainly; that is the only time to tow.

739. Have you not found, when vessels were leaving the port at the proper time of the tide, going with the ebb, that your steam-boat coming up has created great confusion, by getting in contact with the vessels navigating the river?—No.

740. In towing a ship over the tide, does not that cause confusion?—At times it does; but there is no other time for us to go up with heavy ships but after high water.

741. Then the ships that are going to be moored in tiers, lie in your way, and you have to wait till after high water?—Yes.

742. That obliges you to tow over the tide, and meet the trade coming down?—Yes; on the top of high water.

743. Does not that circumstance create confusion?—Sometimes it does.

744. Do you not think it is the principal cause of the confusion?—No.

Mr. *Edward Smith* examined.

745. HOW long have you been a pilot?—Seven years.

746. And accustomed to the river before that?—Yes, for seven-and-twenty.

747. Within the last seven years have you been employed in the navigation of ships up the river?—Very frequently; as much as most men.

748. What is your opinion of the state of the navigation in the Lower Pool?—In a certain measure there are great obstructions occasioned by immense quantities moving at a time. There is one particular obstruction: when a ship is partly delivered, and is prepared to heave out of the tier, she gets out with the craft on one side and a ballast-lighter on the other, sheers out into the middle of the stream and lets go her anchor. There are sometimes vacancies in the tiers which might be filled up; instead of which, ships sometimes come up and drop outside, instead of going where there is room. Another great obstruction arises from large fleets of colliers at Blackwall, Greenwich, and thereabout, riding at single anchor, instead of being moored in tiers: if a man comes up with a heavy ship, and has not a steam-boat to tow him, when it is high water, he wants a berth for that ship, and if these ships were moored in tiers, he could let go his anchor and lie in safety for the ebb-tide. Last winter, in particular, at Woolwich, large quantities of ships ran up as high as Ham Shelf; in going out of Woolwich Reach, we had to cross over to the southward to clear these ships. When you get into the channel there is no means of getting clear of the ships; you must either catch the ground or the ships.

748*. Do you think that the present number of colliers allowed to lie in tiers might be better regulated, so as to leave the navigation more free from obstruction?—I think they might. In the five or six tiers in the Lower Pool on the north shore, I would only moor a certain quantity: in the first tier so many; perhaps a couple more in the next; and wherever I had the greatest bight, there I would moor the greatest number. As to small ships, there are plenty of berths in the Pool where you may stow a great many small vessels of 11 or 12 feet water.

749. Do you think, if the colliers were not permitted to come into the Pool, but were regulated

regulated below, so as to lie in tiers instead of straggling about, that such an arrangement would be a great improvement?—A very great improvement.

749*. They are mostly moored in the deepest water?—Certainly. Supposing you come up with a ship without a steam-boat, between Blackwall and Woolwich, you may be caught: you cannot get to Blackwall, you must go back to Woolwich, and there is no berth for you. If the ships were moored in tiers you could let go your anchor, and hold your ship until the tide swelled.

750. Have you been stopped by a turn of the tide, and met with the difficulty of which you are speaking?—It occurs frequently. If a man gets a westerly wind he cannot judge for a quarter of an hour of the tide. If he gets a free puff, as it is called, he may get beyond Blackwall.

751. When the tide is turned you are in great difficulty?—You must go back with your ship.

752. What is your opinion of the necessity of maintaining, so far as mooring ships is concerned, a passage of 300 feet?—I think 300 feet quite necessary. I conduct a vessel myself, which is 185 feet long; and if I cannot get a good passage I have to let go my anchor.

753. If the passage for the navigation were contracted to less than 300 feet, would that occasion serious inconvenience to the navigation of vessels through the Pool?—It would occasion such inconvenience as we frequently have to put up with. I should say that, in my opinion, 300 feet is little enough under existing circumstances.

754. (By Captain *Fisher*.) I believe that the principal part of your work is with the large steamers?—The greater part with the large steamers.

755. Mr. *Dix*. I was going to propose, that anything above 14 feet should not moor between Ratcliff-cross and Shadwell-dock: more than 90 sail of ships could be put there, at 16 in a tier. You could stow 200 sail of colliers in that way. I would not have 12 ships at Hanover-hole; that is a very bad tier: with the exception of the lower tier on the north side, I would have four or five tiers at Church-hole, Prince's-stairs, and Rotherhithe-stairs.

756. Do you not think that taking away the Pelican tier would be a greater improvement?—Not half so good as taking away Hanover-hole. The tide sets you in towards Hanover-hole, and sets you off from Pelican tier.

757. Does it occur to either of you gentlemen to suggest anything more to the Committee?—Mr. *Dix*. If you could do something with the craft that leave the coal-ships, it would be a great benefit.

758. Do you often see them lashed together?—Very often.

759. You are aware that the practice is contrary to law?—Yes; but it is of no use speaking to them.

760. Has it ever occurred to you, when you found a difficulty in navigating the river, that you have been for a long time without seeing the harbour-masters, and applying to them to remove the difficulty?—Mr. *Perry*. I always see one or other in the Pool.

761. Mr. *Dix*. On the 29th of last October, I applied to a gentleman to order a collier to move his helm, and he told me he had no control over him whatever: the ship was the Mangles, coming out of the South West-India Dock.

762. Do you not consider that the immense number of craft employed to carry the coals from the colliers up above bridge, is one of the greatest nuisances on the river?—It is one of the nuisances, I will not say one of the greatest; I think the colliers themselves are one of the greatest.

763. Did the harbour-master say that he had no control over the vessel, or that you had no control over him?—I understood him to say that he had no control over the collier whatever, or the people belonging to the collier.——*Q*. In point of fact, did he attend to your directions for removing the collier?—*A*. Certainly not.——*Q*. He would not even try to persuade him?—*A*. That is the case.

764. Captain Fisher, have the harbour-masters no control over ships after they have taken up their berths?—Captain *Fisher*. When a vessel is lying at single anchor they can sheer her on the one side or the other, and when large ships come up they anchor abreast of the tiers.

765. Do you consider that to be a case of wilful obstruction of the navigation?—I should certainly say so.

766. If there were a power to punish a person in care of the vessel, by a penalty, do you think that would be an improvement?—I certainly should.

767. Are you aware that, at present, the penalties can only be imposed on the owner of the ship?—I was not.

768. That is the case. Do you think, if the master, or pilot, or other person in charge of the ship were subject to a penalty, that the harbour-masters would be more punctually obeyed?—I think I can speak feelingly. We are under the harbour-masters' direction, and we are obliged to obey them.

769. If the penalty were to be inflicted on the master, pilot, or other person in command for the time being, as well as on the owner, would that be desirable, in order to get the authority of the harbour-master more promptly obeyed?—Yes, certainly; that is the only remedy.

770. Then, suppose, to levy the penalty, you were to take out the master, or pilot, or other person having charge of the vessel, and in the custody of a police officer instantly carry him to the Mansion-house, what would be the consequence?—I am not lawyer enough to point out.

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771. What would be the situation of the craft?—If the ship were at anchor, I consider there would be no difficulty.

772. But suppose that she were under way?—I never would sanction the taking out of a ship the master, or anybody who had the charge of her, when she was under way. If a ship is moored, I think the captain the only ostensible person.

773. If he will not pay the penalty, or obey, what is the remedy; you must take him out of the ship; the consequence is, detention to the ship, which would be a great injury to the owner of the vessel?—Mr. *Voy*. The owner must put up with the damage, discharge the captain, and get another.

774. The case of wilful obstruction was a case in which the harbour-master told you he had no control?—He did so.

775. That arose from the circumstance of the master or commanding officer not being subject to any penalty at all?—It is very likely to have been the case.

776. Do you think, if the officer in command at the time had been subject to a penalty for the wilful obstruction, that he would have answered in the way he did in this instance?—I am sure he would not.

[Messrs. Dix, Perry, Smith, and Voy then withdrew.]

Mr. *Richard Ross* was called in; and Examined as follows:

777. YOU are a pilot of the River Thames?—Yes.——*Q*. How long have you been so employed?—*A*. Three-and-twenty years.

778. Were you employed in the River Thames before that?—Yes, all my life; ever since I was a boy.

779. In the course of your duty in the navigation of ships up and down the river, what has been your observation of the state of the navigation of the Pool?—Sometimes it has been very good, sometimes very bad indeed.

780. What is it generally?—It has been generally very bad.

781. Do you think that arises from the want of better regulations of the harbour service?—I do think it does.

782. Do you think the same number of collier-ships could still be accommodated if they were better regulated, and at the same time leave the navigation more free from obstruction?—Not to put so many vessels in one tier.

783. Then so many could not be accommodated, if so many were not allowed to lie in one tier?—At the present time there could be as many accommodated.

784. Do you mean by a different arrangement?—Yes, a different arrangement.

785. Has it ever occurred to you how they could be better arranged?—They might have 16 or 17 in a tier; there might be so many tiers between the London Dock and the Regent's Canal; so many at Mill-stairs; some up at Church-hole, and about there.

786. Do you frequently see more than 17 in a tier?—I have seen 30; I have counted 30.

787. Of course you know what our bye-laws are, and that they provide that not less than 300 feet, so far as the mooring of ships is concerned, shall be maintained at all times for the purposes of navigation: do you think as much width as that absolutely necessary, according to the present circumstances of the trade of the port?—I do; I have been up with a ship of 700 tons, and had to put her on the ground, for she would not swing clear of the tiers.

788. Do you think that space is necessary to be left free for navigation?—I do.

789. If it were contracted to a much less space, would that seriously impede the navigation?—It would, if there were large free-traders, of 700 or 800 tons, coming up.

790. In your experience, do you think the navigation has improved or not?—I think it has improved.

791. Have you less difficulty than you had formerly?—Yes.

792. How many years back, in your mind; do you mean before the docks were constructed?—I mean since ships have been stopped at Greenwich and Blackwall.

793. That is, within the last three or four years?—Yes.

794. Within the last three or four years the obstructions in the Pool have been less than they were before?—Yes.——*Q*. That is within your experience?—*A*. Yes.

795. Still it is at times very much obstructed?—Yes; and so is Blackwall Reach.

796. How?—By the vessels lying very straggling. If they were to moor in tiers, the same as they do in the Pool, there would be a clear navigation in Blackwall Reach, and the same at Greenwich.

797. If, instead of riding at single anchor and straggling about, they were berthed in tiers the same as they are in the Pool, the navigation would be much better?—Yes.

798. Has it ever happened, within your experince, that in navigating a large ship up the river, the tide has turned and stopped your further progress, and that the vessels straggling about have hindered you from bringing up?—Yes.

799. So that you cannot find the means of bringing a ship up on the turn of the tide in consequence of the vessels riding at single anchor?—I have been obliged to go to the West-India Dock buoys at Limehouse.

800. Would that be the case if the vessels were moored in tiers, instead of riding at single anchor; then you would not have to go back; you could bring your ship up directly?—Exactly so. There is another thing: a number of light vessels heave out of the tier, when they have only got a barge or two of coals in, and go down to the shore between Limehouse Hole and the Regent's Canal; on a flood-tide, when the ships are coming up, as the tide sets in there, it is impossible to get by; they have a craft on one side, and a ballast-lighter on the other.

801. One

801. One to take the remainder of their cargo of coal, and the other to give them ballast?—Yes; that is a very great objection to going through the Pool.——Captain *Fisher*. This is done to make room for the loaded vessels in the tier. At this very spot the coal-merchants want to have two more tiers.

802. You have been so good as to attend the Committee without being required. The Committee have received a letter from Mr. Cruden of Gravesend, at whose instance you attend. He heard this inquiry was going on, and he says he has taken the liberty to recommend that you should be examined. Has any other person than Mr. Cruden, the mayor of Gravesend, requested you to attend this Committee?—No other person.——*Q.* Neither of the dock-masters?—*A.* No one.——*Q.* Or superintendent of the docks?——*A.* Nobody.——*Q.* Or any person connected with them?—*A.* Nobody; I can take my oath of that.——*Q.* It merely arises from Mr. Cruden's hearing of this inquiry, and requesting you to attend?—*A.* It does.

803. (By Captain *Fisher*.) Are not the principal part of the vessels that you bring up for the docks; and a larger class of vessels than used to come up so high?--They are in general free traders.

804. Be good enough to look at this plan for mooring collier-ships in tiers, instead of by their anchors: these mooring-chains will stretch more than half across the river: these are bridles to keep them so arranged as to allow a craft to be on one side of each of them?—If I were obliged to let go my anchor on the chain, I should stop the navigation.

805. If the chains extended outside the tier, you would be likely to let go your anchor, and foul?—I should stop the navigation altogether.

806. You do not think that a good plan?—No; not so good as mooring ships in the way they do now. I may make two or three vessels let go their anchors, and we may hang on the chain, so as to form a complete obstruction to the navigation of the Pool.

807. The colliers are obliged to let go their anchors before they go into the tiers?—Sometimes, when the tide runs hard, they are obliged to dredge their anchors all the way up the Pool.

808. In such a case as that the chains would be dreadfully inconvenient?—Certainly they would.——*Q.* You think the plan is very objectionable?—*A.* I do.

The following statement was then handed in by Captain Fisher:

Harbour-masters' Office, St. Katharine's, 14th March 1833.

809. The Average Number of Vessels that are allowed to lie at the Legal Quays and Sufferance Wharfs, on both sides of the River, between London Bridge and Pitcher's Point.

North Side.

Fresh wharf	7	Miller's wharf	3
Cox's quay and Steam-boat wharf	7	Carron wharf	3
Hammond's quay	3	Downe's wharf	8
Botolph wharf	3	Hoare's wharf	4
Somer's quay, East India hoys	Legal Quays	Browne's quay	2
Custom-house quay	3	Dundee wharf	2
Wool quay	3	Malcott's wharf	2
Galley quay	3	St. Andrew's wharf	2
Chester quay	3	Dundee arms, passage-boats to Gravesend	3
Brewers' quay	3	Wheat-sheaf wharf	2
Leith and Berwick wharf	3	Portland-stone wharf	2
Iron-gate wharf	3	Bowle's wharf	2
Fenning's wharf	2	Whiting wharf	2
Harrison's wharf and platform	4		
Watson's wharf	1	North Side	94
Leith and Glasgow wharf	5		
St. Katharine's, Aberdeen and Dublin steam-wharf	4		

South Side.

Topping's wharf, two ships in each length	4	Pickle-herring lower wharf	2
Chamberlain's wharf, four vessels in each length	8	Mark Browne's wharf, two lengths	4
Cotton's wharf, four vessels in each length	12	Davis's wharf, three lengths	6
Hay's wharf, two lengths, four and five in each	9	Hartley's wharf, two lengths	4
Beal's wharf	10	Liddaird wharf	2
Carpenter Smith's wharf	6	Burnet and Pomeroy's wharf, two lengths	4
Griffiths's wharf, two lengths, five vessels in each	10	Cole's upper wharf	2
Gun and Shot wharf	4	Newball and Son's wharf	1
Ground wharf, two lengths, four vessels in each	8	Lucas and Spencer's wharf	1
Stanton's wharf	4	Platform, Rotherhithe	2
Stanton's lower wharf	2	Caroline wharf	2
Pickle-herring upper wharf	2	King's mills	3
		Total Number, South Side	112
		Notal Number, North Side	94
			206

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A REPORT from Mr. *Elmes*, Surveyor of the Port of London, was read as follows:

810. Sir, 9, St. Bride's Avenue, Fleet-street, 13th March 1833.

In pursuance of your commands, that I should use all the means in my power, as surveyor of the Port of London, to make myself acquainted with all the matters now in question concerning the said port, and to communicate my opinion thereon to you, I have employed my utmost diligence and exertion on the subject, and take leave most respectfully to submit the following observations to your consideration.

I have reduced the large survey belonging to the harbour-service to a smaller scale, so that it may come under the eye at one view, and have laid down thereon the various moorings, &c., taken from the Report recently made by the harbour-masters and myself, in pursuance of the orders of the committee of the 22d of February last, to which, as well as to the following observations, it may serve as a key, always referring to the large survey for details and particulars.

The object of this inquiry is, as I conceive, to ascertain the best mode of providing sufficient accommodation for the increased trade and shipping of the port of London.

In order, therefore, to meet these views, I shall take leave to consider, first, the access to the port of London and the present state of the river Thames, in relation to the passage, and to the stations or moorings of the increased number, as well as the large size, of the shipping that now frequent that port; secondly, the state of the channel, and the facility of navigation to the various docks, quays and wharfs, and the unloading of such vessels as usually discharge their cargoes in the stream; and, thirdly, how the port of London may be so improved as to remedy the many defects now complained of.

To use the words of the Committee of the House of Commons, appointed in 1796, to inquire into the best mode of providing sufficient accommodation for the increased trade and shipping of the port of London, it is necessary, "in order to throw out a lure to commerce, and allow the port of London a fair competition for foreign trade, that the river should be rendered equal to the accommodation of shipping at times of its greatest concourse; inasmuch as such concourse results from causes of natural operation, and invariable in their effect; and the conveniences of a port can only be estimated in its relation to trade and navigation at seasons the most favourable to it."

In the present state of the port of London, it is obvious that, notwithstanding the increased number of docks, its natural, fundamental and actual resources, are at present incompetent to the great purposes of its vastly extended commerce. It is also obvious that, unless some improvement or extension be adopted, so as to render the port of London suitable to receive the increased intercourse with the trading world, which the active temper, extensive pursuits, and vast resources of the British merchants have invited to its bosom, much of its most valuable trade will leave this port, for the benefits of the greater accommodation and easier access of some of our active and improving out-ports.

Ever since the day when I received the honour of the appointment of surveyor of the port, I have used every effort to make myself acquainted with the practical duties of my office. I have perused all the Parliamentary Reports and Plans submitted to the various Committees from 1796 to the present day, and have received much valuable information from the harbour-masters, the superintendent of mooring-chains, and other practical men. I have also perused, by your desire, all the evidence recently given before your committee, and have made many personal surveys on the river, both with and without the above-named gentlemen.

1. *Our first consideration, therefore, is, the access to the port of London, and the present state of the river Thames, in relation to the passage, and to the stations or moorings, of the increased number, as well as the larger size, of the shipping that now frequent that port.*

The commercial business of the port of London is periodical, slack at some times of the year, and proportionably greater at others. It is, therefore, the duty of those persons to whom the care of the port is entrusted, to provide against times of great influx of ships, and not allow them either to be crowded at their moorings, or to obstruct the passage or highway that leads to every part of the port.

The leading complaints of the present state of the river are fourfold, namely: 1st, that there is too little space allowed for the stations or moorings of ships, whose business does not lead them into docks; 2d, that there is not passage-way enough for vessels that are going either into a dock, or to some of the wharfs at the upper part of the port; 3d, that there is also too contracted a space, and too little water, between the tiers and the shore; and 4th, which is a summary and consequence of the whole, that the port of London is not adequate to the business required to be done in it; that all parties interested in using it are inconvenienced, and sustain injury from its present state, and that some measures must be adopted for its improvement.

2. This brings us to the consideration, *Of the state of the channel, and the facility of navigation to the various docks, quays and wharfs; and the unloading of such vessels as usually discharge their cargoes in the stream.*

The state of the channel, as before mentioned, is inadequate to the wants of the trade of the port; and all the owners of docks, quays and wharfs, complain of the want of facility in navigating vessels to their several places of destination.

The causes of these grievances are, in several instances, mentioned in the preceding section; but many others arise from other circumstances; such as from vessels unloading and discharging their cargoes, and lading in ballast, in the stream; the want of sufficient water for the larger sized vessels that now frequent the port of London; the numerous shoals and mud-banks that require removing, &c.

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The coal-craft occupy much more room than the same quantity of coals in the ships; and from the number of colliers unloading into their attendant barges, this description of small vessels are considerably multiplied, particularly in the seasons of their full employment. This great mass of small craft, taking their stations or moorings in the stream, at times of numerous arrivals of colliers, must also be taken into the estimate of impediments on the surface of the river from Limehouse to London Bridge.

The timber-ships also create similar impediments, by means of the craft employed to remove the deals, and the rafts of timber which are floated up by the tide to their destinations. A ship-load of such timber afloat in rafts will occupy 11 or 12 times the surface of water that the ship which brought it into the river does.

Another cause of impediment to the proper navigation of the river in the Port of London is the number of shoals and mud-banks, and an insufficiency of water; much argument has been used about the cause of this insufficiency of water. Some practical men think that ships in tiers occasion a scouring under their bottoms; others, that anchoring loosens the soil, and deepens the channel: and others, that if anchoring does such good, why is it that the river is no deeper now than it was 30 or 40 years ago?

It may be true that ships lying athwart the river in too great numbers, so that the inside ships ground at low water, will take off from the velocity and scouring effects of the stream, and by gathering silt, though almost imperceptibly, will tend to the formation of shoals. Silt may also gather between the sweeps of mooring chains, and in parts where the eddies set round points, but many other causes interpose to cause a collection of silt in various parts of the river.

Alderman Lucas, in his evidence before the Committee of the House of Commons in 1796, supposes that from a single shower of rain 2,000 or 3,000 tons of soil may be passed into the river; and he corroborates the supposition by the statement of a fact that, after a violent storm of rain, 20 tons of soil were passed by a single common sewer into one of his lighters that lay aground. Since that time I need not remind you, Sir, as a commissioner of sewers, how many more sewers now discharge their contents into the Thames than at that time. This grievance is also increased, though slowly, by ships ballasting while at their moorings, and spilling the ballast in the act of lading it. The cleansings and refuse of dry docks, the rubbish and ashes thrown overboard from ships at moorings, mud-banks occasioned by the eddies in the entrances of wet docks, and the mud and silt thrown out from the docks, and many other similar causes of the deposition of silt, tend to the deterioration of the navigation of the river in the Port of London.

3. The third consideration, as proposed in the beginning of this paper, is, *How the Port of London may be so improved as to remedy the many defects now complained of.*

Having regard to the magnitude and importance of the object in contemplation, I have confined myself almost exclusively to that department of the harbour-service which devolves on my office of surveyor of the Port of London, leaving the arrangement, berthing, and navigating the ships that enter the port, and other departments which are connected with the art of seamanship, to the harbour-masters, and the mechanical part of the placing of mooring-stones, buoys, &c., when duly authorized, to the superintendent of mooring-chains. Confining myself, therefore, to my own department of the service, I take leave to say, that a great and general complaint is made of inattention to a proper conservation of the depth of the river. This is by no means a new or an untrue complaint. From an official list of the shoals now existing in the river, furnished me by the harbour-masters in August 1827, a copy of which is on my plan, certain shoals are enumerated, which are all of hard and useless substances for the purposes of ballast. I have also a survey of the river in my possession, taken by the Corporation of the Trinity-house in 1750, with soundings marked thereon, reduced to the lowest tide that happened between the 10th May and the 8th June 1794, and, from a comparison of the two, many of the latter are still in the river.

At that period as well as the present, it appears that mud-banks are as frequently collected in the river as shoals of sand or gravel; and that the ballast-lighters, with views to profit, resort only to the shoals which furnish ballast for shipping, and thus neglect to deepen the river equally, and in parts most essential to navigation. Many ships also, it appears, drop down the river to obtain ballast at a cheaper rate than they are served by the Trinity-house.

Other grievances, not appertaining to my department, such as complaints against the bye-laws, regulations of the harbour-service, &c., I leave of course to the committee and to the harbour-masters.

As to remedies, I am of opinion the Port of London may be so improved, as, with the aid of proper regulations, it may be rendered capable of answering all the purposes of trade and navigation.

First, the river should be deepened to a regular depth in the channel, perhaps, as a minimum, to 16 feet below the lowest ebb; but since so many larger ships frequent the port now than formerly, 20 feet may not be considered as too much. In the Parliamentary Report of 1796, Mr. Edward Nickells, an ancient and experienced Trinity-house pilot, says that, in his time, vessels of 300 or 400 tons burthen might reach Union-stairs and Wapping Old Stairs, where he had frequently piloted ships of that description, but there was not water for them higher. In our time, vessels of more than 800 tons burthen have been brought up as high as St. Katharine's.

Much space may also be gained by a good arrangement in the berthing of the ships, which, when once settled, should not be departed from; for "where there is a place for everything, everything should be in its place," is a motto that is applicable everywhere.

I have not been able to make a correct estimate of the quantity and quality of the soil to be excavated, for want of a proper and accurate survey; but, from the information

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which I have obtained from the harbour-masters, and the superintendent of the mooring-chains, of the number, extent, and quality of the shoals, I conceive that the quantity of ballast, mud, and hard concreted stuff of various degrees of hardness, to be excavated, will amount to about 3,000,000 of cubic yards, so as to make the bed of the river one uniform depth of from 16 to 20 feet at low water.

The middle and the concave parts of the river, when once excavated, will always keep themselves clean, but it will be necessary to attend particularly to those places on the convex sides, to keep them clean, and to maintain their depth.

The means of removing these shoals, mud-banks, and other obstructions to the trade and navigation of the Port of London need not be pointed out by me.

If colliers and timber-ships be allowed to lie in the river, for the purpose of unloading in the stream, I am of opinion that they should not be permitted to lade in ballast at moorings, but that the Committee should provide ballast-wharfs, and a spacious area whereon to deposit the ballast, mud, silt, and other materials so excavated. The colliers should, in such case, not be permitted to sheer out into the stream for the purpose of going away, or of taking in ballast, and thus obstruct the navigation of loaded vessels; but should all be compelled to go down inside the tier to the place where they are to take in their ballast, or make fast inside till they have taken it in.

But it would be far better for every interest, in the present enlarged state of the trade of the Port of London, which I hope and trust will still increase, that neither colliers nor timber-ships should be allowed to enter the Pool; and I am prepared to prove that such a measure would be advantageous to every one concerned in those trades, and a benefit to the public, if a collier and timber-dock, which would serve as an asylum harbour in bad weather, and many other useful purposes, were constructed at Mucking Creek in the county of Essex, capable of holding from 400 to 500 ships, and a rail-road from thence through the marshes of Essex to London. The detailed advantages of this plan are too long for this place, but among them are, that colliers and timber-ships might unload immediately on their arrival, and their cargoes be a deposit, or mart, whence the metropolis and the counties of Essex Herts, Cambridge, &c. might be supplied at any time and at a cheaper rate than at present; I have, however, enclosed my plan of its line with the present. Bricks would also be supplied cheaper to the metropolis by this line than at present; and fish, in any weather, be abundantly and economically brought up fresh from the vessels.

A few more observations on this very important subject, which has increased far beyond my original intentions, in spite of much condensation and some omissions, and I will conclude.

As there is a strong eddy on the south shore of the river above Cuckold's Point, nearly to Globe-stairs, there is a greater necessity for preserving a good width in the Lower Pool; and mooring tiers should not be placed too low down, except in cases of emergency; for ships in coming up the river, by being compelled to close in upon the southern shore, the bow of the vessel is affected by the eddy, whilst her stern is driven up by the flood, and thus frequently brings the ship athwart the tide.

It is also most important that the river should be kept deep, and that sufficient space should be preserved at the above-mentioned convex point (see the Plan); because, whenever the wind is to the west or south, which it is nearly three-fourths of the year, ships desirous of going down the river with such a wind get under weigh and run down against the flood-tide as far as Limehouse Reach, when they lie to or drop a kedge until the tide turns, so as to get down Limehouse Reach. This practice, which is unavoidable for the purposes of navigation, renders it more imperative on the committee to provide and preserve every possible width and depth in the Lower Pool, as a clear channel for ships going up and down. Besides, this part of the river is the narrowest (see the Plan), and calls for improvement, either by widening and deepening or by the prevention of interruption.

It appears, therefore, that the port of London, under its present regulations and accommodations, is inadequate to its trade and navigation; and that, by improvements and regulations, it may be rendered fit for its purpose. Therefore is it not the duty, as well as the interest, of those on whom this duty devolves so to improve it; and can they better employ the funds raised by the tonnage duty?

In regard to the stations of the tiers, the number of ships allowed to lie off each tier, the width of the sailing channel to be preserved, &c., I do not feel myself competent to speak, but the accompanying Plan shows such a channel of 300 feet, because I find it so provided in our bye-laws, and how many ships may be moored at the present moorings, leaving such a navigable channel.

With regard to the size of vessels that navigate the port of London, I would say that a steam-boat, such as goes from Fresh Wharf to Margate, is 180 feet long, and a ship of 500 tons burden requires a space of 200 feet, which is her length from the tafferel to the jib-boom when run in, to drop up athwart the tide, as such vessels often do.

To excavate too near the shore will, I fear, be dangerous to the wharfs, as most of their foundations are too shallow to admit it; but for the future every new wharf, or old wharf rebuilt, should be compelled to go to a proper depth below low-water mark, as party-walls are compelled by the Building Act to be of certain thicknesses when rebuilt.

A quarterly or other periodical report should be given by the surveyor of the port of the depth of the river, of new shoals and banks, and other obstructions, and an estimate of the probable cost of removing them; and many other practical improvements that have, I doubt not,

not, suggested themselves to you and the gentlemen of the committee during this very important inquiry.

I have the honour to be, Sir, your very obedient humble Servant,

James Elmes, Surveyor of the Port of London.

To E. Tickner, Esq.,
Chairman of the Navigation and Port of London Committee.

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811. A RETURN of the Tiers, and the Number of Vessels, which have been removed in consequence of the Spaces allowed in the River Thames to the Dock Companies by Acts of Parliament.

	Number of Tiers.	Coasting Vessels.	Foreign Trade Vessels.	Total Coasters.	Total Foreign Trade Vessels.
St. Katharine's Docks:					
St. Katharine's tier	2	14	—	—	—
Barge roads	2	20	—	—	—
Gilling's-chain, removed by order of the port committee	1	7	—	—	—
		41		41	
London Docks:					
Wapping entrance	4		32	—	—
Shadwell entrance—Pelican tier	1	10	—	—	—
Shadwell Dock	1	16	—	—	—
		26	32	26	32
Surrey Canal	1	18		18	—
West India Docks:					
Limehouse entrance	2		16	—	—
Ditto - ditto - to south dock	1		8	—	—
Blackwall entrance to south dock	3		24	—	—
			48		48
East India Dock entrance	4		32		32
				85	112

Total Coasting vessels	85
Total Foreign trade vessels	112
GRAND TOTAL	197

Thursday, 28 *March* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, ESQ., IN THE CHAIR.

[*Copy from Mr. Gurney's Short-hand Notes.*]

A deputation of the gentlemen of the coal-trade having been called in,

812. *Chairman.* Gentlemen of the deputation of the coal-trade, when you were last here it was suggested to you that you should amend the plan which you had previously put in for mooring a greater number of vessels in your trade in the river, for the purposes of your trade, than is at present accommodated. Do you attend now with an amended plan?—Mr. *Barchard.* The plan now before the committee is the plan so amended.

813. *Chairman.* Here is a written report, which may as well be read, and then I will ask you if you have anything to say. The report was read as follows:

814. Sir, Coal-meters'-office, 28th March 1833.

I am desired by the deputation of the coal-trade, who were favoured by a conference with the port of London and navigation committee, to state their great anxiety to meet the wishes of your worshipful committee in endeavouring to find accommodation for all persons [vessels] frequenting the port of London; and have, in furtherance thereof, revised and corrected the plan previously presented by them to the worshipful committee, and since returned

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returned to them, which plan, so revised, they now beg again to lay before the worshipful committee, trusting the attention they have given to the general convenience, and the facility thereby afforded to all ships entering the Pool, will meet with general satisfaction. They beg, at the same time, to call the attention of the worshipful committee to the fact, that the coal-trade have from time immemorial (being long before the construction of any docks) been in the habit of using the Pool in common with many other trades, for the purpose of unloading their ships; practical experience having taught them that no plan is so well adapted to celerity as discharging in the stream, both as to the ship so discharging and to the barge so receiving the cargo; a clear proof that docks are not suited to the coal-trade is given, that notwithstanding a canal or dock is now and has been for some time open, no colliers or barges ever make use of it for the general purposes of the trade, but alone for coals intended to pass up the canal, or for consumption on its banks. The coal-trade, in laying down the accompanying plan, have strictly adhered to the existing law, reserving 300 feet clear passage, but, in so doing, they beg to state their decided opinion, as well as the opinions they have been able to collect from other persons who have known the trade and practice of the port of London for many years, that such reserved space is neither just or necessary; if proper restrictions were placed on all persons bringing large ships through the Lower and Upper Pools, and obliging them to drop up, as ships generally entering the port now do, no difficulty of egress or regress would then be found; but if ships of all sizes, destined for one and the same place, are to be allowed at all times of the tide to come up with the full power of steam, it will become necessary not only to remove the colliers, but all other vessels from the Lower and Upper Pools: but as we cannot for a moment suppose that any one party will be allowed to engross the whole of the river for their own private use and benefit, we are of opinion that 200 feet would afford ample space for transit, and would thereby afford berths to all ships frequenting the port, and requiring to discharge their cargoes in the stream, provided the harbour-master or his sufficient officers be appointed specially to attend to the berthing of colliers and coasters as they arrive; more particularly in fixing the upper and lower tiers; power being given to him to enforce obedience to his orders by summary penalty for refusing, and thereby preventing vessels from hauling between any tiers so formed. From the late alteration in the legislative enactments regarding the delivery of coals, they have been sold in London at an unprecedented low price, and being an article of great weight and bulk, and of the utmost necessity to the inhabitants of this great metropolis, we beg to submit the propriety of giving every facility to the present mode of delivery, admitted on all hands to be the best and cheapest possible method, keeping in view the objects and efforts of the worshipful committee in that respect, as well as the greatest general convenience for the real purposes of the port of London, accompanied by the fact, that tiers of colliers tend very materially to deepen the bed of the river wherever they lie, both by causing a strong current of water under them, and by so constantly breaking the ground with their anchors. Under these circumstances, the trade are of opinion that fixed moorings are not desirable, as well as from the constant difficulty of anchors getting foul; but should the worshipful committee think proper to make an experiment, the most favourable situation for the trial would be at the upper tier on the north side, thus fixing the spot for the first tier. The trade beg to refer to the statement contained in their former letter, of the necessity of clearing away the mud on the south side, thereby enabling the ships to lie so much nearer the shore. It will thus appear on the plan that ample space is found for 228 ships in the following mode:

No. 1.	Ratcliff-cross tier, lower	16	
2.	Ratcliff-cross tier, upper	18	
3.	Stone stairs	18	
4.	Bell wharf, lower	20	108 North side.
5.	Ditto middle	20	
6.	Ditto upper	16	
7.	Mill-hole tier, lower	16	
8.	Ditto middle	20	
9.	Ditto upper	18	88 South side, below Tunnel.
10.	Hanover-hole, lower	18	
11.	Ditto upper	16	
12.	Church stairs	12	
13.	Elephant stairs	10	32 above Tunnel.
14.	Prince's tier	10	
		228	

Such being the number required for the general purposes of the trade; as it must be borne in mind that, although only 150 weighers are employed by the society, a considerable number of ships are daily discharged by the gas companies, as well as some others by persons employing their own weighers. The deputation beg further to state they are quite ready to prove the state of the Lower Pool is in much better order, and has been so since the formation of the bye-laws by the honourable corporation than had previously been for many years, and would have been sufficient to satisfy all parties had not St. Katharine's Docks been made in its present situation.

I have the honour to remain, Sir, very respectfully, your obedient servant,
R. W. Barchard, Chairman.

To Edward Tickner, Esq., Chairman of the
Thames Navigation and Port of London Committee.

Mr.

Mr. *Barchard* examined:

815. Mr. Barchard, have you anything to say in addition to what is contained in that written report?—I believe it contains the whole of our opinions on this subject; we have altered the plan very materially from the plan previously laid before the committee.

816. This supposes the removal of mud and shoals?—It does.

817. Then, if the committee should find the means of removing shoals and mud-banks, so as to admit as great a number of vessels in the coal-trade to be moored in tiers as you have suggested by this plan, the entire number of which being 228, that number would be sufficient; you could make that do for the purposes of your trade?—Decidedly. We are quite satisfied to take that number.

818. When you were last here, you suggested that a person should be employed exclusively to regulate the coal-trade in the port of London, and have no other duty to do; is that still your opinion?—Yes. In consequence of the immense number of ships employed in the coal-trade, and the great celerity of coming in and going out, they are not like other ships which lie some time, but they are in and out sometimes in 48 hours.

819. The appointment of such an officer would be of great service to your trade, would it not?—I am of opinion it would improve the collier pool very much.

820. Such an officer might be under the control of the principal harbour-master of the port of London?—Yes.

821. In the suggestion you made with regard to the appointment, are the committee to understand that the coal-trade will pay such a person?—I think no objection whatever will be made to paying him; because we should not want a person of great ability or great cost, but a hard-working man under the direction of the harbour-master, and armed with power from him to direct the ships into certain berths.

822. Do you think one man would be sufficient to regulate the berthing of these ships?—Quite sufficient: probably at certain times, when arrivals are large, the duty would be great for one man, but that would only be for a short space, and this is in addition to the present harbour-service. We do not ask the power of directing this man, we only ask to have a man appointed.

823. At present, the harbour-master's duty is regulating the general trade, all the trade in the port; the suggestion from the coal-trade is, that he should be assisted in his duty with regard to the coal-trade?—Exactly so. Respecting the laying down these tiers, we are exceedingly anxious to meet the wishes of the committee, to accommodate all persons frequenting the port. To give facilities to all persons entering the pool, we have laid this down with the smallest number calculated for our trade; but we have put a tier where it may be said, by some parties, we are intruding on their moorings; it is granted by the bye-laws; yet if any valid objection should be made by those parties, we should not press for that tier, but manage in some way or other to do with 10 ships less, making 218 instead of 228. We should feel obliged by having that tier, but would not press for it if any strong objection were made to it.

824. *Chairman.* The written report is very explanatory, and it does not occur to me to put any further question to you.

[The Deputation withdrew.]

Mr. *Willins* called in, and examined:

825. Two letters from Mr. Willins, dated 24th December 1832 and 31st January 1833, were read. [For these letters, *see* pp. 22 and 44.]

826. Mr. Willins, the committee will be happy to hear what you have to say, in addition to what is contained in these letters?—I wish to say the distance from King's-stairs to the Horse Ferry is about a mile or a little more; by averaging 10 ships, I think we require for each tier 300 feet, that is my computation; 20 tiers in that case will take 5,850 feet; allowing 150 feet for the entrance to the Surrey Canal, we then can lay 200 vessels along the south shore. I would limit the number in each tier to eight. I think six tiers may be placed opposite New Crane, after the removal of the causeway.

827. How do you propose, supposing the causeways to be removed, that the public shall have access to the stairs?—By canals, by excavations.

828. That is, you would excavate sufficiently deep that there should be water up to the stairs at low water?—Yes.

829. Would not that fill up again?—Oh, no; the watermen would take care of that.

830. Then your suggestion is, that wherever causeways lie in the way of tiering ships, or endangering ships if they get aground on them, that they should be removed, and channels excavated in their stead deep enough to admit water at low water up to the stairs?—Yes.

831. What width do you propose for these channels?—Wide enough to admit a boat to be rowed; say 12 feet wide.

832. Do you propose to make the sides good by any work?—Oh no; the sooner they scour away the better.

833. In suggesting the excavating of channels instead of the present causeways, has it occurred to you that excavating might endanger the foundation of the wharfs?—I have thought of it, but I do not think it will have that effect; in that part there are not many wharfs of great consequence.

834. Excavations near the foundations of wharfs must endanger them?—Certainly.

835. How would you keep the channel open?—The watermen will do that in the same way as they keep the causeway clean.

836. What would be the probable expense of making one of these channels?—I do not imagine

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imagine it would be very great; I have not made a calculation; but the causeways could be taken away for ballast for colliers.

837. Do you think that ballast would be worth as much as the cost of the excavations?—Not so much.

838. What might be the depth of most of the excavations close to the landing in shore;—I should not imagine that, in any case, it would exceed eight feet at the bottom of the stairs, unless at low-water mark; it would lessen as it went down to low-water mark.

839. It must be several feet below low-water mark?—Not much.

840. Would eight feet be sufficient?—I think it would.

841. Are not the present causeways next the shore in many cases 12 feet or more than that?—They rise and fall; the greatest rise and fall we have in this river is 26 feet.

842. What depth of water would it be necessary to keep to float wherries out and in these channels?—You may give them two feet if you like, but one foot is quite enough.

843. Then there must always be two feet of water at least?—One foot.

844. That being the case, how can the watermen keep the bottom from silting up?—They will keep that clear.

845. But the present causeways are left dry, consequently they can be easily cleaned or repaired?—They will take care and keep the channel clear, when once you make it for them.

846. They could not have any back water?—They could, if you choose to be at the expense.

847. Have you anything further to add?—No.

[The witness withdrew.]

Mr. *Edward Russell Bell* examined:

848. Mr. Bell, are you a wharfinger?—I am.

849. Are you the gentleman for whom Mr. Drinkald requested an opportunity of giving some information to the committee?—I am.

850. Have you seen the letter from the St. Katharine's Docks?—No.

851. You are aware of the nature of the inquiry this committee is pursuing?—I believe it is an inquiry for the improvement of the navigation of the River Thames.

852. The object of this committee is, to inquire, first, whether it is necessary that 300 feet of clear passage should be kept, so far as the mooring of the vessels is concerned, at all times, for the purpose of navigation; and, secondly, if it is, the committee is anxious to discover the best means of accommodating the greatest possible number of vessels of the various trades that resort to the port of London; that is, in substance, the nature of the inquiry. Any information that you can give, on either of these two points, the committee will be glad to receive?—Merely as to the practicability of keeping 300 feet of the pool clear.

853. Are you practically acquainted with the navigation of the River Thames?—I have had a good deal of opportunity of knowing it, having been constantly upon the river for several years.

854. You are not a lighterman?—No.

855. Nor a pilot?—No.—— *Q.* Nor a master of ships?—No.—— *Q.* You are a wharfinger?—A wharfinger.

856. The first point is, as to the necessity, for the purpose of navigation to the wharfs high up the river, to the St. Katharine's Docks, and other places, where the trade of the port of London is carried on; as to the necessity, as far as the arranging of the ships in tiers is concerned, of maintaining a free passage of 300 feet, at all times, at low-water. Have you turned your attention to that subject?—I have; and my belief is, that it is utterly impossible to maintain a passage of 300 feet, and to properly accommodate the trade. From the evidence before the committee already, which I have read, I believe several propositions have been made; one was for collier-docks; another was to allow only a certain number of vessels to come up the Pool; and to empower the harbour-masters to detain such vessels as they could not accommodate while preserving 300 feet. Collier-docks I consider totally out of the question; because, if you clear the river of vessels, and put them into a collier-dock, the channel of the river will ultimately be stopped up, or restricted to a very narrow space indeed. With regard to keeping vessels down below, it must be evident to every person connected with the river, and who knows the expense at which shipping is maintained, that it is utterly impossible for a trade to be carried on with the port of London, except at an increased rate of charge, detrimental to the interest of the port at large. The port of Liverpool seems to be carrying away a great deal of the trade of this port, and, unless you are able to reduce the expense, and give extra facilities to vessels coming into the port, I conceive the trade of London will be materially deteriorated by the improvements making at present throughout the kingdom by means of railways; you will have a very large portion of the western trade of this country carried to Liverpool; and perhaps, in the end, it will come to London by railways instead of coming round in shipping. In that view, it seems absolutely necessary that you should not increase the charge on vessels coming into the port of London; and you cannot detain vessels lower down, except at an increased rate of charge for men's wages, interest of money, and so forth. Docks generally, I conceive, have imposed a very considerable expense on this port, inasmuch as a portion of the trade is diverted from its original natural channel, from the wharfs and buildings contiguous to the banks of the river, into these docks, at increased charges, which would not have been incurred had they unloaded in the river. I also consider that many of these docks have not lightened the river of vessels. If you take the superficies of the docks, and the superficies of the river-

room

room afforded for the accommodation of these docks, and consider the number of wharfs and waterside properties destroyed, I think you will find the accommodation which the docks afford is that, simply, of warehouse-room. With regard to the practicability of keeping 300 feet clear passage, I consider it is utterly impossible to do that, and to accommodate all the shipping at present coming into the river. But if you were to adopt any system which would give the harbour-masters sufficient power to regulate and keep the shipping in their proper places, so as to prevent obstructions in the channel, it would be most beneficial to the trade in general. It seems to me that the harbour-masters now have not sufficient power and control over the vessels generally. Knowing that I was coming here, I went down to refresh my memory on certain points about the river. There are many parts in the river which do not appear to me to be fully occupied with shipping. I do not name these spots, because it might appear invidious; I only hope that the harbour-masters will look to that, and report to this committee, as its servants, that there are certain portions of the river not fully occupied with shipping, or where shipping might be placed. Another thing which I deem a more material obstruction to the river, or fully as great an obstruction as any that exists, is the steam-vessels. This is a description of vessel so opposite in its character to that of a common ship, that, speaking generally, I think it dangerous to place the two vessels in the same river, so as to come in contact. The damage done to steam-boats is very considerable; the damage also done to the shipping is very considerable. A director of the General Steam Navigation Company informed me that, were all their steam-vessels detained at Greenwich, instead of coming up the Pool, the Company would save from 3,000 *l.* to 3,500 *l.* a year; for the principal part of that expense arose from damage done to shipping, and damage sustained by steamers running foul of shipping. If it be asked why the General Steam Navigation Company do not keep their vessels down at Greenwich, the answer is, that this is not to be expected from them, unless a general Act were obtained by the City for this purpose, of regulating steam navigation, with a clause which would restrict all steam-vessels to remain there. I find that the parties who are the most desirous of such a regulation are the steam-boat owners themselves. There is at present in course of signature a petition to Parliament from steam-boat owners, soliciting an enactment to prevent steam-vessels coming above the Pool. I submit that it ought to be borne in mind that steam-vessels are the most dangerous vessels we have, for the traffic of the river; and that they are doing material damage to the trade of the port. I desire to assure the committee that even light barges, without cargoes, are imminently in danger when they come in contact with steam-vessels; but barges with cargoes and goods, exposed in the way that wharfingers and lightermen have them on the river, especially feel the inconvenience of steam-boats. Much of the business of a wharfinger consists in carrying goods to and from the wharfs and the vessels lying in the river and in the docks. For the safe transit of those goods, a wharfinger is responsible to the extent of their value, while they are under his care. If a wash or a wave go over his barge or lighter, or if he come in contact with a steam-boat, and damage happen to the goods, his only remedy is against the parties absolutely offending; but it is often difficult to prove that fact legally; and it is really grievous to see parties carrying on their trade for the support of their families exposed to such injuries, with so little chance of redress. They cannot insure the risk, it is entirely their own; no office, no underwriter, will have any thing to do with a barge risk. By the steam-boats, a very large portion of the watermen (a very excellent and a very useful class of men, who have been hitherto always protected, and to whom the city has shown peculiar favour at all times,) are totally driven out of their business; some are reduced to beggary and are maintained by the parish. At Blackwall, I understand they are not making more than 2 *d.* or 3 *d.* a day; and at Limehouse they cannot get support. Steam-vessels traverse the river to such a degree, that the lives of people in wherries are in positive jeopardy, and now few persons will venture in them. If steam-vessels, generally, were kept at Blackwall, or not allowed to come up higher than Greenwich, it would be one of the greatest improvements to the Port of London. In that case, the harbour-masters might find berths for vessels, and be enabled to keep a clearer channel in the river. In my opinion, if steam-boats were sent to Blackwall or Greenwich, it would be no detriment to the public generally. The river is not crowded below Greenwich: let Greenwich be the highest point to which steam-boats should be allowed to come. By this restriction, I conceive no detriment would arise to the public; because, at present, persons desirous of going on board steam-boats are obliged to take some vehicle to the wharfs or places from which steam-boats proceed. Some of the steam-vessels take up passengers in the stream, others take them from the wharfs; but passengers have a coach to convey them to the place the steamers are to sail from, and the same coach that takes them there, can take them to a stage provided for the purpose by the steam proprietors, to carry them down to Greenwich or Blackwall. The expense will be trifling; for now you can get to Blackwall for 8 *d.*, and to Greenwich for about 1 *s.* By such an arrangement, the public, instead of being injured, would be materially benefited. I mean, that the public generally would be greatly benefited if steam-boats were kept down below, at Greenwich; for then the navigation of the river would be free for craft and wherries, without risk of injury to life and property.

857. Would not a great deal of time be saved by landing the passengers at Greenwich or Blackwall, instead of having to come up in a steam-boat through the Pool?—Not a great deal.

858. By landing them at Blackwall, they could get to town by a coach in about twenty minutes?—Yes; but a steam-boat will carry them very nearly as quick.

859. If there were a railway from London to Greenwich, of course the passengers could

then go down at something like twopence or threepence a-piece?—No doubt they could go down very cheaply then. There are two railways projected.

860. The point that the committee are most anxious to have the opinions of practical men upon is, that of the necessity of maintaining, according to the present bye-laws, a space of 300 feet for the purpose of navigation: considering the number of ships that are dropping up with the tide, and down again with the tide, to and from the wharfs and docks, and so forth, do you think that less than 300 feet, for the purpose of that transit, would do?—I certainly think that 300 feet would be an advisable space to maintain, but I do not believe that it is possible to be maintained with any regard to the expense or convenience of trade.

861. You are a wharfinger?—I am.

862. If the access to your wharf be materially obstructed by the navigation not being kept sufficiently free, your property is deteriorated, is it not?—It is, most decidedly.

863. If the navigation were not kept sufficiently free for ships to have access to your wharf, then your wharf would not be of the use or value that it would otherwise be?—Certainly, that is true: but if, at the same time, I have a vessel detained below, because the harbour-master says there is not sufficient room for her above, I am deteriorating my property, and destroying the trade to my wharf to a very great degree. I never knew the Pool so obstructed, that if a vessel could not get up one tide she could not get up the next.

864. You conceive it more advantageous to suffer a little inconvenience in coming up the river, than to have your vessels detained below?—Most decidedly.

865. And you think that the river is a place for loading and unloading, as well as a mere highway?—Most decidedly; and my belief is, if the steam-boats were removed, by being kept down below, that the passage would be materially cleared. Three petitions to that point have been communicated to me; one from the watermen, signed by 528 in a few days; another from the lightermen, which laid, I believe, only one or two days, and was signed by 51 of the principal lightermen in London: there is, in course of signature, another petition from the Margate steam companies, and a variety of others, praying that it may be carried into effect with regard to all steam-vessels. I believe that the steam-boat owners are more anxious for this measure than any other persons.

866. Would it be of more advantage to have the river kept clear, or to have a little inconvenience, and let vessels come up to their places of loading and unloading?—My belief is, that the superior advantage would be from keeping the river clear, that is to say, 300 feet clear, provided all the trade of the Port of London can be accommodated.

867. And 400 feet would be better than 300, provided it could be granted?—Yes.

868. Could not the trade be accommodated with less, that is to say, with 200 or 250; as far as you have seen of the river, do you think 200 or 250 feet would not be quite sufficient for the transit on the river, and to accommodate all persons?—My belief is, that the harbour-masters will find extreme difficulty in keeping any particular number of feet. If I were master of a vessel, and the tide failed me, I should have a right to make fast to the first thing that came in my way; any person that unmoored me would be responsible; I have a right to hang there for one tide: that is the common law of the land. If the whole trade can be accommodated, there cannot be a question that 300 feet is advantageous; and if 400 feet could be granted, so much the better; but to keep any particular number of feet clear, either 200 or 300, would, I think, be a matter of extreme difficulty, and would materially obstruct the traffic in the river: it would be seriously detrimental to all persons connected with the river, to docks as well as wharfs. There are some persons who differ with me upon that point: they think that the docks would be materially benefited by having this 300 feet; but whatever destroys the trade of the Port of London, destroys the docks. The docks may get a temporary benefit by having 300 feet granted to them; but if I, as a merchant, am subject to have my vessel detained four or five days, with the demurrage going on, or the expense of the vessel going on, it will be with me a matter of calculation, whether it is more expedient for me to load my goods in the port of London or the port of Liverpool. This, I conceive, must be manifest to every person.

869. The question is, whether it would be better to suffer occasional inconvenience by the river being crowded, sometimes, when there is a great deal of trade, or by having the 300 feet kept clear; would you prefer suffering the inconvenience of having your vessel detained below, to having the 300 feet clear?—Most decidedly, I would prefer to suffer the inconvenience of having my vessel detained. I beg to say that, when I suggested the keeping of all steam-vessels down below, I meant to except those steam-boats which are engaged in towing large vessels up the river: large vessels would incur great risk in coming up if they had not steam-boats to tow them.

870. Would you make an exception with regard to the Aberdeen steam-boats?—Certainly not; no boat whatever; because if you admit one you must admit all. For the sake of the few quarters of corn that these vessels bring, which is very trifling compared with the trade of the port, shall the whole Port of London be subject to inconvenience? A penny or twopence a quarter is the very outside of the charge on bringing up this corn from Blackwall. I could, myself, lighter all the corn from there at twopence a quarter extra.

871. Supposing the present steam-vessels for passengers were restricted from coming up higher than Blackwall or Greenwich, the spot to which they would be restricted would attract a considerable concourse of persons?—Yes.

872. Would not that benefit either Greenwich or Blackwall very much?—I certainly think it would, materially.

873. Of

873. Of course, the congregation of a great number of persons at Greenwich and Blackwall would benefit those localities, in the same degree that it would be a detriment to the places which the passengers now go to?—Certainly it would not detract so much from the trade of the city, as it would confer benefit on Blackwall or Greenwich.

874. State your reason?—No persons now go down to the neighbourhood of the steam-boat wharfs, except those that are going aboard steam-boats, or who accompany their friends to see them off, and then immediately return: but a person going such a distance as Blackwall or Greenwich naturally requires some sort of refreshment; he finds himself there about dinner or breakfast time, and there he prefers to take his meal. A passenger going by an early steam-boat from Blackwall or Greenwich, would certainly sleep there, instead of in London. Passengers would either go down and sleep there, or sleep on board the vessel.

875. Suppose a steam-boat wharf constructed at the foot of the new London Bridge, near one of the ends of the old London Bridge, would not that benefit Fish-street hill, the retail trade of which place has been seriously injured, if not entirely destroyed, by the diversion of the line of access to the bridge; do you not think a steam-boat wharf there would benefit that particular locality?—Everything that increases traffic is, of course, a benefit; but I do not suppose a person would get above two pounds a year, on account of a steam-boat wharf being there.

876. But whatever it might be it would be entirely taken away, and sent down to Greenwich or Blackwall?—Yes.

877. You are of opinion, and there is no doubt of the correctness of it, that the greatest possible number of vessels that can be accommodated high up the port for delivering and taking in the cargoes, and the least possible detention of the vessels, is an undoubted benefit to the trade?—Certainly.

878. Now then, with the great number of vessels of all kinds, continually coming up with the flood-tide, and going down with the ebb-tide, do you think, practically speaking, for that large number of vessels always coming up and going down this river with every flood and ebb tide, that a smaller space than 300 feet would be sufficient for the purpose of navigation?—I should say that 300 feet is too little a space for navigating those vessels conveniently.

879. Because there must be a passage to the berths and stations for the delivery of cargoes and taking them in, there must be an access to those places?—Yes; and I should say, from the number of vessels constantly coming in, for the convenient navigating of those vessels, the masters of ships would like more than 300 feet passage; but I do not consider 300 feet necessary. I think the port infinitely better with a smaller space, leaving that space to be regulated by the judgment of the harbour-masters, as circumstances demand.

880. You are not a pilot, nor practically acquainted with the navigation of ships up and down the river?—I have had a good deal to do with them at the wharfs, and from being constantly on the river.

881. You have said it is impossible, under any regulation that could be made with the trade of this port, to reserve 300 feet?—I believe it is impossible, under any regulation, without you alter the common law of the land.

882. You must be aware that, if the tiers are so regulated, the ships actually moored in tiers, as to leave a space of 300 feet between them and the shore, or between the tiers opposite to each other, yet that every tide circumstances are continually occurring which human control cannot prevent; for instance, vessels cannot get into tiers without dropping their anchors, and similar incidents practically contract the passage, although the vessels are in tiers. Now what would be the effect of reducing the passage to 200 feet, or something considerably less than the present 300 feet? Would not the effect be to block up the passage altogether?—Not altogether; of course, every vessel that lies out from the tier obstructs the passage to the amount of its bulk; but, certainly, I never knew 300 feet kept clear in the river for passage, and yet I never knew a great obstruction to the trade. The chief thing that ship-owners complain of is, the damage to the vessels coming through the Pools, from the Pools not being cleared: if you clear the Pools, you will lessen that damage; as a matter of course, if you obstruct it you increase it.

883. According to the bye-laws, the harbour-masters are obliged to arrange the ships in tiers, so as to leave 300 feet; that is the law and the practice at present; and with that space you say there is so much confusion and obstruction, that ships are continually getting damage in passing through the Pools?—No doubt of it.

884. Then if this passage is contracted, would not the allowing the tiers more than they are allowed at present, very seriously obstruct the passage through?—I think, if they were allowed more than they are at present, it would; but 300 feet is not kept; I affirm that 300 feet is not kept. I know, for a positive fact, that very frequently the passage is not 100 or 150 in some parts; indeed the harbour-masters cannot help themselves.

885. Is not the bringing up a large ship of 600 or 700 tons, backing up against the tide, while the Pool is filled with vessels, attended with great inconvenience and danger?—Most decidedly.

886. Large vessels, with valuable cargoes, are towed up by steamers to the St. Katharine's and London Docks?—Yes.

887. And there is now considerable difficulty, is there not, in towing those large vessels through the Pool?—Yes.

888. If that passage were materially contracted, would not the difficulty be greatly increased?—Decidedly.

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889. Do not you think the nearer to London a merchant has his goods warehoused, the greater the advantage is to him?—Yes.

890. But do not you consider that the keeping of this passage blocked up would be a great loss to the merchants of London, by the detention of their vessels?—I consider that altering the present circumscribed number of vessels that lie in the Pool, much beyond what they are at present, would be a material injury. If a very large fleet of colliers comes up the river, the harbour-master cannot tell us whether it will be one, two, three, four, five or six days before our vessel is to come up. Suppose a cargo of corn: I have often known corn to fluctuate 5 *s.* or 6 *s.* at a time; if a merchant has a large cargo of corn, and loses a good market for it, by the detention of his vessel below, the loss is of serious consequence to him.

891. Do you recollect the river previous to the docks?—I recollect it very well before the St. Katharine's Docks, but not before the London Docks.

892. You say you have observed sometimes that there has not been a passage of above 150 feet?—Yes; I believe opposite the Globe-stairs there has frequently not been a clear passage of above 150 feet: I speak in round numbers.

893. If there were 200 feet, do you consider that it would be inconvenient: would not a clear passage of 200 feet be sufficient for the ships to come up for the trade of London?—Yes; I should say it would.

894. Would not that accommodate the trade?—I should say that it would accommodate the trade better than the 300 feet passage, because when the river is free of vessels the harbour-master can easily keep a larger space; it is when the river is full that the difficulty arises. If you were to give 300 feet passage, you would keep more vessels down below.

895. If we could keep not less than a 200 feet passage, there would be a sufficient transit for the ships?—I should say it is small enough; but at the same time I consider it would be better for the trade in general than the 300 feet.

896. Very large ships come up to the London and St. Katharine's Docks, ships of 500 or 600 tons?—Yes.

897. What is the length of a vessel of 700 or 800 tons, from her bowsprit to her tafferel; how many feet?—I cannot state positively the number of feet.

898. *Committee.* Then you cannot say with certainty whether 200 feet would be sufficient, if you do not know the length of these vessels.

899. You are aware that these large ships lay athwart the tide occasionally?—Yes, they may, unless brought up by steam-boats.

900. Then they must have a space much wider than the length from the bowsprit to the tafferel?—Not if brought up by steam-boats.

901. Are all large vessels brought up by steam-boats?—Not all.

902. The question referred to those not brought up by steam-boats?—Large vessels that come up the river with only 200 feet of room, would never sail up and lie athwart the tide; they warp themselves up the channel, and never lie across that portion of the tide. If you have 300 feet, they would not lie athwart the tide.

903. You have stated, that if your vessel was coming up the river, the harbour-master could not tell whether it would take one day or five days before you could get your vessel to the wharf; now Captain Fisher says it is not so.—Because 300 feet of the channel is not kept clear, that is the reason: if Captain Fisher were obliged to keep 300 feet, he could not accommodate the trade.

904. Your idea is, if you take such a great portion of the river up, as to keep 300 feet clear, that then it must necessarily follow you exclude some other trade; that is your idea of it?—Yes; and then it remains for the committee to decide what vessels are to come up and what to stay below.

905. With large ships working up against the wind, on a flood-tide, do you think it possible for the harbour-master to find berths for those ships, so as to obtain 300 feet at low water?—No, I do not think it possible.

906. The large ships that do come up, generally come up at flood-tide?—Yes.——*Q.* Or rather at the half-flood?—They come up as early as they possibly can in flood-tide, and they warp themselves up the Pool.

907. What are the largest ships do you suppose that are not towed up by steam-vessels?—Many 300 and 400 ton vessels come up without any steam-vessel; they must warp up; whenever they come into the crowded part of the channel they must warp up. But with regard to the coasting trade, if your regulations went to detain vessels below, and you did not make some particular exception with regard to the coasting-trade, you would ruin it altogether; because a great number of vessels in the coasting-trade start, like mail-coaches, at a certain hour, so that they must be accommodated, or the trade would be seriously injured: and the foreign trade would not altogether go into the docks, but a large portion of it would be landed at the wharfs.

[The witness withdrew.

Captain *John Fisher* examined.

908. You are the principal harbour-master?—I am.

909. In addition to the opinion you have given, pending this inquiry, relating to the necessity and practicability of maintaining 300 feet passage for navigation, as far as the tiering of ships is concerned, and according to the present bye-laws, have you anything to say? What is your individual opinion as a practical man?—My opinion is, that, whether there were 300 or 600 feet, the obstruction would be the same, according to the present system of navigating vessels in the Pools. With the great and increasing number of coal-vessels

vessels and coasters, or steamers with passengers, passing up and down the river at all times of the tide, and steamers towing large vessels to and from the docks, they must come in contact with each other: while this is the navigation, I defy any human being to prevent obstruction, even if the river were double the width it is. With a strong westerly wind, and a fleet of colliers and coasters, and other vessels driving up the river, they necessarily lie athwart; they cannot drive without: a steamer comes up with a ship of 700 or 800 tons, and of course she must go faster than those vessels can drive with the tide; she gets into the middle of this fleet of vessels, and she is under the necessity of letting her anchor go, as she thinks to prevent damage, but the moment her anchor brings her up, she swings round on colliers or coasters, and a bowsprit or a jib-boom goes away: that is the natural consequence. Here is the main cause of the obstructions. As I have stated before to this committee, until the steam-boats were in the habit of towing these large vessels up to St. Katharine's Docks, we never had a complaint of any description respecting the state of the Pools. Formerly, we seldom had less than 300 feet, and we never had any complaint until those large vessels came so high up the river, and caused damage. I am confident that those docks must have been aware, when they got their Bill passed, that there would be great obstruction and difficulties in the passage for large vessels to and from the docks so high up the river. Indeed, I really think that, at the time the Bill passed, it was not in the contemplation of the proprietors of the St. Katharine's Docks to introduce those large vessels into them. I have only to repeat, what I stated before to the committee, that while those large vessels come up to such a high point of the river, there must be obstruction: and if they do come up, it will require a greater space than formerly to allow them to navigate.

910. Then, prior to the construction of St. Katharine's Docks, complaints were not made of the obstruction to the navigation in the Pools?—Not at all, or it was a very rare thing indeed; I hardly recollect more than two instances, and those were caused by the colliers driving from their anchors, which in the course of a little time was rectified.

911. You are aware that the chief reason assigned to Parliament for the construction of the St. Katharine's Docks, was, that it would be greatly to the advantage of the merchants to have their goods delivered, and also shipped, so near to London: that was the chief argument that induced the Legislature to authorize the construction of those docks. Well, Parliament having listened to that reason, and authorized the construction of these docks, you are aware that access to them must be preserved as far as is practicable, are you not?—Oh yes, certainly.

912. But that there must be great difficulties occasionally?—Yes. When the Act passed for the St. Katharine's Docks, I do not believe the Government or the company had any idea that large vessels would go so high up the river.

913. You say that the principal inconvenience in the river arises from such large vessels coming up to the St. Katharine's Docks?—Yes.

914. Could not these vessels have an entrance into the St. Katharine's Docks at some other position, without coming so high up the river?—No; it is impossible. I can show the committee that there cannot be a more convenient place; you may have it perhaps 30 or 40 or 50 feet lower down, but I do not think that would be any convenience.

915. Are you not aware that at present considerable expense is incurred in warping ships into the London Docks through the new entrance?—If there is any expense, I am confident it is defrayed by the docks, not by the ship-owners.

916. But there is an expense incurred?—I do not say there is not; it is natural to suppose there is.

917. If they had to be warped all the way from that entrance to the St. Katharine's Docks, that would be a work of great labour and expense, would it not?—It would take a long time. But it is still-water there, they have no tide to warp against.

918. Provided they would go through that canal, would not a great part of the inconvenience, of which the St. Katharine's Dock Company now complain, be remedied?—I do not think it would. The principal part which they complain of is the Lower Pool, which lies between the Regent's Canal and the new entrance to the London Docks.

919. Still it would be in part remedied?—Certainly, in part.

[The witness withdrew.

Mr. *William Cousens* examined.

920. Mr. Cousens, you are second harbour-master in the port of London?—I am.

921. How long have you been in that service?—Since September 1820.

922. Prior to that were you much engaged in navigation in the port of London?—Yes; off and on for these last thirty years.

923. Of course you are practically acquainted with the object of this inquiry?—Yes.

924. You have written a letter to the committee on the subject?—Yes; on the 8th of March 1833. (572.)

925. That letter the committee have under consideration. Have you any information to give in addition to what is contained in that letter, relative to the necessity for maintaining a passage of 300 feet wide for the purposes of navigation, so far as the tiering, or the regulating of the ships in tiers, is concerned, or as to its practicability?—Mathematically it is impossible, from the length and breadth of the river from London Bridge to Limehouse; and practically it is impossible.

926. State your reasons?—The present regulations of the port of London, as stated in the bye-laws, extend from King's-stairs to Botany-bay, which is about 5,000 feet; that

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space is given up to one interest, the coal-trade; then a space of about 4,800 feet is given up as a frontage to the docks, making a total of about 10,000 feet given up to two interests.

927. The docks and the coal-trade?—The docks and the coal-trade. The coal-trade has 250 sail allowed by the bye-laws to lie in that space of about 5,000 feet. The docks, for their space of 4,800 feet, accommodate on an average 265 sail; that is, the London Docks, the St. Katharine's Docks, the Regent's Canal Dock, and the Surrey Canal Dock; those are the docks that have so large a frontage allowed them; consequently the docks have not relieved the river, because the river contains the accommodation only for the home trade—the docks contain the accommodation for the foreign trade. From the upper moorings below London Bridge to the lower moorings of the colliers is about 11,000 feet; that is, from Battle-bridge moorings down to the moorings off Botany-bay. From King's stairs to the upper moorings off Battle-bridge is about 6,000 feet, and in that space the harbour-masters of the port of London, ever since I have been one, have had to accommodate, upon an average, 650 sail, making often 650 sail to lie in a space from King's stairs to Battle-bridge; and it is quite impossible to keep a space across the river of 300 feet; the Upper Pool averaging only 600 feet in breadth at low-water spring tide, and the Lower Pool averaging only 700 feet in breadth off Globe stairs; but in some places it is more: off St. Saviour's Dock, or off the entrance of the Surrey Canal, it is a few feet more. I believe it is admitted on all hands, that to make 300 feet space through the Upper and Lower Pools would only be to accommodate 400 sail of ships; now I can show that for the last four or five years the average number is upwards of 850 sail; but halve it, and it leaves only 150 feet space of navigation. I do not mean to say that we have had only 150 feet space of navigation at all times in the Lower Pool; we have had not more than 180 feet on the average, and the other has been provided for by the vessels being ordered up above St. Katharine's stairs, leaving a space above St. Katharine's of only 70, 80, 90, or 100 feet, and leaving 180 feet space, or 170, in the Lower Pool. Therefore I consider it to be quite impracticable to leave a space of 300 feet clear navigation: nor do I think it necessary.

928. You do not consider it possible, consistent with accommodating the trades that you have mentioned?—It is not possible, without stopping the trade.

929. As to the necessity for the purpose of transit through the Pools, you say you do not think it necessary; will you state why?—I do not consider it necessary, because I have seen for these last twelve or thirteen years vessels navigate in an admirable manner when there has not been above 180 feet space at low water. The committee are aware that the bye-laws state there shall be 300 feet space at low water; there is nothing navigating at that time but boats, barges, and steam-boats; ships do not navigate at dead low water. The sea pilots are very clever men in their way; give a pilot a piece of land and he knows where he is, but take him out of sight of land and he is quite lost, or take him up to the Upper Pool, and it is astonishing to see the way in which he navigates a ship—he seems quite alarmed. But very few sea pilots are accustomed to come into the Pools.

930. There are sea pilots used at Gravesend, are there not?—It occasionally happens that sea pilots come up with ships, but very rarely.——*Q.* In general the river pilots are used?—*A.* Yes.——*Q.* They are very competent men?—*A.* Yes; but they cannot navigate in the Pools equal to the Greenwich watermen.——*Q.* They are Greenwich watermen that navigate the steam-boats up?—*A.* Yes, generally.

931. Then you do not consider it necessary for the navigable passage that it should be maintained so wide as 300 feet?—*A.* Decidedly not.——*Q.* And your reason is—*A.* My reason is from an experience of fourteen years. When the trades have been fully employed, when all the meters have been employed, or the coal-weighers and the trade in full occupation, I have never seen the navigation exceed from 170 to 200 feet; and 200 feet at low water I consider ample space to navigate the ships through the Lower Pools.

932. The bye-laws make it your duty to regulate the tiering of ships so as to leave a passage of 300 feet; do you strictly adhere to that regulation?—I have attempted it and failed; I could not in any possible way regulate the shipping so as to maintain that. In the first place, I found the mooring chains were not 300 feet apart in the Upper Pool; and in the next place, the bye-laws state that 250 sail of colliers should be accommodated; but to accommodate 200 sail of colliers we have been compelled to have, and for the last thirteen or fourteen years we have invariably had, from 24 to 26 sail of colliers at the tiers off Bell-wharf-stairs.

933. Can you state the points where it has been found most impracticable to maintain the space of 300 feet?—At Globe-stairs, Pelican-stairs, Union-stairs, Hermitage-stairs, and Tower-stairs.

934. Then at other places you have kept such a passage free?—The Act of Parliament has done that for us; the frontage to the various docks does that for us.

935. Off St. Katharine's have you maintained it; at no part except at the entrance to the docks?—Except at the entrance to the docks there is no other part of the river where 300 feet of navigable space has been kept.

936. Upon the other parts of the river you found it impracticable to carry into effect the regulation of the bye-laws keeping 300 feet space?—Yes; or placing the shipping as therein directed.

937. And that arises from the circumstances of the trade of the port?—It arises from the number of vessels. I have several extracts of the number, and this is a large average, 950 sail. I took a rough draft this morning, which I think will explain the tiers in both Pools; these are the tiers when I first became harbour-master.

[The witness put in a paper, a copy of which is as follows:]

938. A STATEMENT

938. A Statement delivered by Mr. *Cousens*, Harbour-master, showing, as under, the Number of Tiers occupied by the Shipping in the Upper and Lower Pools in 1827.—Those marked in *italics* (red ink *in original*] are lost to the Shipping, in 1833. No. 30. Proceedings of the Common Council.

South Side.	North Side.
	Billingsgate dock.
	Eel-schuyt chain, swinging.
Mooring chain, Battle-bridge.	Yarmouth chain, fixed.
Ditto - - Pickle-herring upper.	Custom-house chain, fixed, steamer.
Ditto - - - ditto - middle.	Legal-quay lighter road.
Ditto - - - ditto - lower.	Ditto - - - ditto.
Limekiln chain.	Dublin chain, fixed.
Upper Lighter road.	Tower steam chains.
Middle Lighter road.	
Lower do.	
Barge-road.	*H. M. Ship Perseus.*
Garland-chain.	Tower upper moorings.
	Do. middle do.
Old Rose-chain.	Do. lower do.
Barge-roads.	*Space for the Ordnance wharf.*
	Iron-gate moorings.
Moorings, George's-stairs.	*Upper-moorings, St. Katharine's.*
Do. Horsleydown.	*Lower do. do.*
Do. do. lower.	*Upper do. corn vessels, half tier.*
Lighter-roads.	*Lower do. do. half tier.*
Mill-stairs, upper.	*Gillan's chains.*
Do. lower.	Alderman's upper moorings.
East-lane upper }	Do. lower do.
Do. middle } steamers.	Hermitage upper chain.
Do. lower }	Do. middle do.
Trinity lighter-road.	Do. lower do.
Fountain-hole moorings.	Union upper chain.
Cherry-garden upper.	Do. lower do.
Do. lower.	A mud chain.
Moorings off Rotherhithe-stairs.	
Do. do.	*Moorings off London Docks at Wapping.*
	Chapel Ship.

Bye-Laws begin.

Moorings off King's-stairs.	Wapping dock, a chain.
Do. lower moorings.	King Edward's, do.
Do. off Prince's-stairs	New-crane dock entrance.
Do. Elephant-stairs.	London Dock entrance, *King James's-stairs.*
Do. off Church-stairs.	*Pelican-stairs tier.*
Hanover-hole upper }	Shadwell. *Shadwell-dock upper tier.*
Hanover-hole lower } ships' anchors.	*Do. lower tier.*
Mill-hole upper }	Colliers at Cole-stairs tier.
Do. lower }	Do. Bell-wharf tier.
Moorings off Surrey Canal. }	Do. Stone-stairs tier.
Do. King and Queen }	Do. Ratcliff-cross upper.
	Do. do. lower.
	Do. Botany-bay tier.
	Do. Kidney-stairs.
	Anchorage off Duke's Shore, stopping [tide, &c.

Bye-Laws end here.

939. The St. Katharine's Docks are allowed, by Act of Parliament, a clear space at the entrance, described by a *radius*, diverging from one point, of 300 feet?—They are.

940. Are you aware that they have actually more than 300 feet?—They have upwards of 1,200 feet.

941. Are you aware that they have taken two radiuses?—I am aware of that.

942. Instead of taking from the exact centre of the entrance, they have taken it from two centres?—From each pier head.

943. By which they get how much more than they ought to have?—Why that is such a trifle that it is not worth consideration.

944. Yes; but what is the quantity?—It would only be the breadth of the lock, 50 feet one way; that is a mere nothing. But they have 600 feet more than they have a right to by the Act of Parliament, because they have swept away the river from Iron-gate stairs to Parson's stairs, which is 1,200 feet space; they are only entitled to 600 feet, but we were ordered so to do by the Port Committee, on trial.

945. Then we could make more use of the river there?—Yes.

946. We could resume that again?—Yes.

947. Just describe the space that may be resumed, and which is now taken up by the

No. 30. Proceedings of the Common Council.

St. Katharine's Docks; where does it lie?—The St. Katharine's upper tier, out of the limits of the St. Katharine's Docks, and the moorings at Gilling's-chain.

948. How are they occupied at present?—The Gilling's-chain is occupied by the St. Katharine's Docks; they call it St. Katharine's Dock mooring craft; and the other, the upper tier off St. Katharine's, has occasionally a steamer hauled to it, from the St. Katharine's Dock wharf.

949. Not more than one?—Sometimes two; I have seen three there.

950. What number of vessels could be accommodated there?—In the old style we used to accommodate 24 vessels there.

951. Would that inconvenience the St. Katharine's Dock much in bringing in a large vessel?—Not in the least.

952. Is there a good depth of water there?—Before the St. Katharine's Docks were excavated we used to have about six or seven feet only; now that they are continually excavating, they give a tolerable depth of water.

953. Then if you were authorized to berth ships there, which you are not at present, as the bye-laws now stand, how many ships could you accommodate there, do you think?—We could accommodate 24 more with ease at those two stations.

954. You have stated that at low water you have seen it as low as 120 feet, have you not?—The navigation reduced?

955. Yes; to 120 feet?—Why, I cannot say; I have seen it as low as that, only in the Upper Pool.

956. What is the difference between high and low water there?—When it is 120 feet at low water, perhaps it would be 150 feet at high water.

957. And that is the time they make use of it for the purpose of navigating large vessels?—Yes.

958. And not at low water?—Not at low water.

959. Now, with reference to the board of harbour-masters, do you see any inconvenience in the harbour-masters making a separate report as to their opinion on any subject referred to them by this committee, or do you consider it preferable to send it to the board? Is there any difficulty in the harbour-masters making a separate report?—Not the least; I should prefer it.

960. Would there be any advantage in it?—I think there would. The last report that came to the committee I have never seen.

961. Were you not present when it was considered?—No; I am speaking of the monthly report; the last report I was not present at.

962. But were you summoned?—I was; but I was not on duty, and had not the use of a boat.

963. And instead of that you sent in this letter?—No; I sent in that letter from reading the evidence at the town-clerk's office last month.

964. You have stated that a great alteration must be made, if 300 clear feet were allowed, according to the bye-laws?—Yes.

965. If that regulation was carried into execution, that is, a clear way of 300 feet kept, what particular class of vessels would be excluded from the present buoys, and about what number?—About 450 excluded from the present accommodation; and out of that 450, there would be about 100 colliers and 350 coasters, called corn-vessels and others.

966. And where would they be moored?—There would be a difficulty again. We should be obliged to send them down below Woolwich; because the natural bed of the river does not admit of 300 feet of space at low water for the navigating of ships.

967. It is not possible to keep it, nor is it necessary?—Nor was it ever considered necessary till the new system of steam-navigation was introduced.

968. Does any of the foreign trade recently unload in the river more largely than formerly?—No; the vessels now principally go into docks, compared with what they used to do.

969. Then the river trade has not been increased by any of the vessels not going into docks?—The river trade is only increased by the home-trade; by the colliers and coasters.

970. Then there is no greater demand for the river from the coasting trade than such as we had before?—The coasting trade has considerably increased since I have been in the service.

971. Here is a report signed by you, as well as all your colleagues; if you differed essentially on any point with them, you would have felt no difficulty in writing a letter to the committee, would you?—I should not like to have addressed the committee; I have never done so on any occasion yet. I should not have addressed the letter to the committee that I did, had it not been for their kindness in allowing me to see the evidence at Guildhall.

972. You signed this report?—Yes.——*Q.* And therefore you agreed with it?—*A.* What is that?——*Q.* It is immaterial; you would not have signed a report unless you agreed to it?—*A.* No.

973. Could any improvement be made in the river by the removing of shoals?—I am decidedly of opinion that no shoals should exist in our navigable space.

[The witness withdrew.]

Mr. *Charles Rowland* examined.

974. YOU are third harbour-master?—Yes.

975. How long have you been in the harbour-service?—Since August 1821.

976. That

976. That is twelve years?—Twelve years nearly.

977. Prior to that time, were you engaged in navigation?—In the navigation of the East India service and in the navy.

978. The committee would be glad to know your opinion, first, as to the necessity, and, secondly, as to the practicability, of maintaining, for the purposes of navigation in the Upper and Lower Pools, a space of not less than 300 feet, so far as the regulating the tiers of ships is concerned; first, do you consider that necessary?—It is not necessary.

979. State your reason?—As long as the ships are to lie in the river Thames, the tiers, as they are regulated at the present time, are filled up by the different trades; at the Lower Pool by the coal-trade, and the Upper Pool by the coasting trade, principally. To preserve a 300 feet navigation, would be to destroy these two trades, and send them out of the Pools.

980. Answer the first head, as to the necessity: for the purposes of navigation, and according to the circumstances of the port of London, is it necessary to maintain this passage of 300 feet?—I consider 200 feet is sufficient space of navigation through the Pools.

981. Are you speaking of low water or high water?—Low water.

982. What reason do you assign for that?—I assign merely that the vessels in coming up the Pool should have their fair way of driving with the tide; and 200 feet is ample room at low water for that purpose.

983. Taking into account the passing up and down?—The passing up and down. I consider that the flood-tide is intended for the ships coming into the port of London, and the ebb-tide for their departure.

984. Then you are of opinion 200 feet is necessary?—Yes, I am of opinion that 200 feet is necessary.

985. You were about to assign reasons why certain trades would be injured if 300 feet were insisted upon; go on and assign those reasons?—I feel that if the navigation of 300 feet is to be preserved in the Upper and Lower Pools, it will materially affect the different tiers of shipping, both in the Upper and Lower Pools; and the extra number that it will take away from those tiers will be compelled to deliver out of the Pool at Limehouse and Greenwich.

986. That is, the trade would be driven lower down the river?—Lower down the river; and that, if we were to preserve 300 feet in the Collier Pool, we could not stow away above 147 colliers.

987. Then we have your opinion in a small compass. From your practical knowledge of the subject, you are of opinion that 200 feet for navigation at low water is amply sufficient?—Is ample space for the purposes of navigation.

988. And that the aggregate amount of trade carried on in the port of London is so great, that if 300 feet is insisted upon, it will very materially injure the trade of the port; that is your opinion?—It is; exactly so.

989. You have taken into account the bringing up of ships to St. Katharine's Docks in your evidence?—The vessels that have been in the habit of navigating with the tide, I am speaking now of, entirely with the tide to the St. Katharine's Docks or the London Docks; 200 feet is sufficient space for them at low water, and that would be equal to 300 at high water.

990. Then you do not lose sight of the access to those docks?—Certainly not.

991. It is proposed to place two or three tiers above Rotherhithe church; it is there where the Irish corn-vessels are moored frequently, is it not?—The Baltic trade, and the Irish vessels also, with corn and other stores.

992. If there were two or three tiers occupied by colliers above Rotherhithe church, where would those Irish vessels have to go to?—They must go out of the Pool; there is no place above for them to go to. They would certainly be compelled to drop down at Greenwich, or Deptford, or Limehouse.

993. Then it would be at the expense of the corn-trade, if the coal-trade were accommodated above Rotherhithe church?—Not exactly the corn-trade: the Baltic trade.

994. Do you know that St. Katharine's Docks have a considerable space preserved to them there, beyond the 300 feet which they are entitled to under the Act of Parliament?—There is a small portion above the Bell, which the St. Katharine's Docks have given up (the tier of all the winter season,) to the vessels in the general trade.

995. Can you find, there, room to accommodate ships?—Certainly not, without encroaching on their limits.

996. Then, if it were suggested to you that 24 ships more than are at present accommodated there, could be placed without intrenching on their limits, under the Act of Parliament, you would say it could not be done?—Yes; I should say it could not be done.

997. How many steam-boats are accommodated there now?—At this season of the year they generally have four or five; in the summer season I have seen as many as a dozen.

998. Then if you had heard somebody say only one was accommodated there, that would be incorrect, in your opinion?—Certainly.

999. If those steamers were sent away to accommodate other vessels, how could they be disposed of: do you know?—Indeed I do not know. We find the usual place where they used to go up, at the Tower and the Custom-house, over-crowded now in a dreadful manner.

1000. Would there not be room for them higher up, when the London Bridge comes to be taken away?—That will be according to the nature of the trades they are in.

[The witness withdrew.]

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Lieutenant *William Mayott* examined.

1001. HOW long have you been in the harbour-service in the port of London?—Three years and a half.

1002. And, before that, you were an officer in the navy?—In the navy.

1003. And you have been accustomed to navigation during the greater part of your life?—Yes, ever since I was a boy.

1004. You are aware of the nature of the inquiry the committee are carrying on?—Yes.

1005. From your observation, in the course of your duty, what is your opinion as to the necessity of maintaining a passage of 300 feet through the Pools, the Upper and Lower Pools, for the purposes of navigation?—I do not consider it at all necessary to maintain 300 feet at low-water mark.

1006. What space would you consider now, considering all the circumstances of the port, to be necessary?—I should think 200 feet would be a sufficiency at low water.

1007. And you are keeping in view the maintaining access to the London and St. Katharine's Docks?—Yes.

1008. As well as the coasting trade?—Yes; keeping all the interests in view.

1009. And the circumstances of the trade of the port?—And the circumstances of the trade of the port.

1010. The result of your observation in the course of your duty is, that 200 feet would be sufficient?—Quite so, at low water; because vessels at low water do not navigate; and, of course, there would be a sufficient space as the tide flows.

1011. Are you able to preserve the ships as you are directed by the bye-laws?—No, certainly not; not at all times. The Pools are very thin just now, but even when the Pools are thin it is impossible at all times to preserve it.

1012. But at times, such is the influx of a large number of ships in the various trades in the port of London, that you cannot maintain a free passage of 300 feet?—It is impossible.

1013. Because it would be so materially injurious to certain trades, at particular times?—Certainly.

1014. And that is the reason why you are not able to do it?—Yes; especially in the Lower Pool. When the number of colliers are allowed to lie there, it is impossible to maintain 300 feet there.

1015. You mean to say, distinctly, that, from your observation and experience, you are decidedly of opinion that 300 feet is not necessary?—I am decidedly of opinion that 300 feet is not necessary.

1016. And that 200 feet at low water is amply sufficient?—I should think, quite so.

1017. And that, if 300 feet, at all times and under all circumstances, is persisted in, that it would be very injurious to the trade of the port of London?—It would, to the coal-trade particularly.

1018. And the coasting trade?—And the coasting trade, certainly, to maintain 300 feet clear up through the Pools.

1019. That would affect both the colliers and the coasting trade?—Certainly, and would send a great many vessels out of the Pools.

1020. At times, is not such the pressure of trade in the port of London, from peculiar causes, that you have found it absolutely impracticable to carry the regulations of the bye-laws into effect?—Impossible. I have known from 800 to 1,000 vessels in the Pools.

1021. In that you include those lying at the wharfs?—Yes, from Limehouse to London Bridge. During the month of February 1832, we never had so few vessels in the tiers as 600.

1022. Are you aware that the St. Katharine's Docks have a larger space at their entrance than by the Act of Parliament they are entitled to have?—I believe they have.

1023. How is that space at present occupied?—By steam-boats that go to St. Katharine's Docks principally, with the exception of the winter time; they then allow vessels, by sufferance, to lie at their buoys.

1024. Then that space, in some way or other, is now occupied?—It is now occupied by the steam-boats—those buoys which lie right opposite to our office.

1025. About what number, generally, of steam-boats is lying there?—Seven or eight I have seen there in the summer time.

1026. And generally two or three, or more?—Generally two or three.

1027. But you have seen seven or eight, or more, at times, in the summer?—Yes, I have.

1028. If they were not permitted to lie there, where could they be accommodated?—Not in the Pool; in the Pool they could not.

1029. That is over-crowded already?—It is; and those are principally passage-boats.

1030. Do the steam-vessels lie at both buoys?—They lie between the buoys, so that they should not swing.

1031. What is the greatest number you have seen at both?—From six to eight.

1032. That is not frequent?—No; in the summer time. In the winter time they permit coasting vessels to lie there.

1033. They have more space above the Bell than they are entitled to?—Yes, they have.

1034. From being described by two radiuses instead of one?—Yes.

1035. If they were confined to their 300 feet, diverging from one centre, could you find accommodation

accommodation for a great number of merchant ships there?—A few more we could; because we should be able to make the Alderman's tier larger.

1036. About how many do you think more?—About 10 or 12 more.

1037. But would that displace these steam-boats?—Yes, certainly.

1038. At such times as when from 800 to 1,000 ships are in the port, what would be the effect of insisting upon this passage of 300 feet for navigation?—The effect would be to oblige many vessels to be sent down the river to below Woolwich. It would be a great obstruction to the navigation of the river in those places.

1039. Do you consider it practicable and desirable to regulate the collier ships lying at Greenwich and Blackwall; to regulate them in tiers waiting to go up into the Pool?—Not as we lay them in the Collier Pool, certainly not. It would be attended with a great deal of difficulty, and, in fact, the ships could not lie as I have stated; when some of the ships, perhaps, might be lying in the middle of the tier, they would be compelled to go out, leaving others.

1040. With regard to vessels lying at Deptford, and Greenwich, and Blackwall, waiting for their turn to proceed up to the Pool to discharge their cargoes, what is your opinion as to the practicability of arranging them in tiers?—We cannot lay them down there, as we do in the Collier Pool.

1041. You know they lie straggling about the river at present, being under no regulation, and very much impede the navigation?—We keep them in small tiers, three or four together.

1042. Oh, you do subject them to some regulation?—In that way. We make as many go alongside each other as we can, but we must let them swing.

Friday, 12 *April* 1833.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

EDWARD TICKNER, Esq. in the Chair.

[*Copy from Mr. Gurney's short-hand Notes.*]

1043. A report from the harbour-masters on the amended plan of the coal-trade was read as follows:

1044. At a Meeting of Harbour-masters held at the Office, St. Katharine's, this 11th day of April 1833; present, Captain John Fisher, R.N., Mr. William Cousens, Lieutenant William Mayott, R.N.

A communication from the Worshipful Thames Navigation and Port of London Committee, dated the 28th *ultimo*, having been read; also a letter from Mr. R. W. Barchard, addressed to the chairman of the said committee, accompanied by a plan for laying down 228 colliers. The harbour-masters having examined the said plan, and frequently surveyed the proposed situations, also having duly considered the same:

Resolved, that the harbour-masters find from practical experience, that there is not sufficient space between the Shadwell entrance of the London Docks and the Regent's Canal, to moor six tiers of colliers as described by the said plan, without at times obstructing the entrances into the said docks and canal, as the tiers are continually shifting from strong winds and tides. The harbour-masters are further of opinion that there is not sufficient space for five tiers of colliers between the Tunnel and the Surrey Canal, for the same reason as stated above.

In respect to appropriating the three moored tiers above Church-stairs, for mooring colliers, the committee will be best able to judge whether those tiers can be taken away from the trades now using them, and for which the chains were laid down.

(signed) *William Mayott.*
John Fisher.
William Cousens.

1045. The committee were attended by Captain Fisher, and Mr. Cousens, two of the harbour-masters.

Sir *John Hall* was called in.

1046. *Chairman.* Since the committee last had the favour of your attendance here, relative to this inquiry for the better regulation of the harbour-service of the Port of London, you are probably aware that the committee have felt it their duty to take the opinion of a variety of interests connected with the port of London, in relation to the several propositions which the St. Katharine's Dock Company submitted to this committee. The committee have heard observations from the dock companies, from the coal-trade, from the society of ship-owners, from the lightermen, the watermen, the wharfingers, the masters of steam-vessels, the river pilots selected by the corporation of the Trinity-house, and their own officers and harbour-masters. It was intimated to you, sir, that the notes of such evidence were accessible to all parties feeling an interest in this inquiry, and

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I presume and hope you have seen them. The committee will be glad, now, to be favoured with any further statement you have to make on the subject generally, or in reply to heads of evidence which have been adduced.—Sir *John Hall.* Prior to my availing myself of the offer of the committee, I should request one question may be asked of the harbour-masters, that is, What is the understanding on the part of the harbour-service in respect of the width allowed for each collier lying in a tier?

1047. *Chairman.* Will you have the goodness to state the average width of a collier, Captain Fisher?—Captain *Fisher.* The average width of a collier I consider 25 feet.

1048. Sir *John Hall.* I have a document which I would wish to put in first, and which I wish to have considered as part of my evidence; a report from the two dock-masters of the St. Katharine's Dock Company. The report was read as follows:

1049. Sir, Dock-master's Office, 6 April 1833.

We beg leave to report our opinion, that, with respect to the distance which ought to be kept clear in the river, between the Lower and Upper Pools (inclusive) for the safety of ships of 500 tons and upwards, passing to and from the London and St. Katharine's Docks, that it ought to be at least 300 feet. Ships of this description are frequently obliged to drive through the Pools, and, as their extreme length from the jib-boom when run in to the taffrel, is from 180 to 200 feet and upwards, there is little room to spare out of 300 feet space for casualties and other ships passing, as they will naturally have to shoot ahead, or drop astern, agreeable to circumstances; and particularly in strong winds, or when they are obliged to let go their anchors, they would not have room to swing, but must get foul of the tiers, and liable also in the Lower Pool to take the ground; in either case there is great risk of damage; and, if the ships take the ground near high water, they may be wrecked. The Lower Pool is generally the most crowded with colliers, and as, from several surveys taken of the tiers in the Lower Pool as they are at present moored, they average, each vessel in breadth, about 26 feet, consequently there ought to be no more than 15 vessels in any tier, which will occupy the space of about 390 feet. Under these circumstances, a less distance than 300 feet at any time would not only be difficult, but dangerous, for the safe navigation of ships of the above description.

We are, Sir, your most obedient servants,
Charles S. Compton, P. D.M., *James Adams,* D. D.M.

To Sir John Hall, &c.

1050. Sir *John Hall.* I will beg to state in addition the real state of the Pool, as it has fallen under my own observation. On Friday last, Good Friday, (I wish the committee could themselves have been there to have seen it), I went down at half-past one and remained there till nearly three; I saw no harbour-master during that period. The result of the state of the Pool was this: about half-past one, opposite Globe-stairs, there were three ships ashore, on the south shore; close to Pitcher's Point two colliers had dropped up in the centre of the stream, it not being wider than 150 or 160 feet, one of which remained at anchor forty-five minutes in the centre of the stream. If there had been a harbour-master, I ask whether such an abomination could have been permitted? for that vessel stopped all the rest of the vessels; one which attempted it, a schooner, could not get through, and actually carried her boom away.

1051. Mr. *Taylor.* What time of the tide was it?—Sir *John Hall.* It must have been flood about three o'clock, it was about an hour and a half before high water.

1052. Mr. *Taylor.* Can you make any reply to this Captain Fisher?—Captain *Fisher.* Mr. Cousens was on duty that day, I dare say he can explain it.

1053. *Chairman.* Were you on duty on Friday, Mr. Cousens?—Mr. *Cousens.* On Good Friday I think I was, but the order-book and attendance-book will show that I was; I was satisfied with the state of the Pool: it is stated on the minutes of the office, on the log.

1054. Mr. *Taylor.* I apprehend that a representation of the facts to the conservator of the river Thames would at once have caused a suspension of the harbour-master for the day. It is impossible that this committee can be always afloat. When Sir John Hall saw so flagrant a case of neglect of duty, I only wish he had at once complained to the Lord Mayor.

1055. *Chairman.* The Lord Mayor would in all probability, in case of such a complaint, have laid it before the committee.

1056. Mr. *Cousens.* There was a similar complaint made this very morning, of a poor unfortunate collier dropping her anchor in the stream.—*Chairman.* A collier dropping her anchor and remaining 45 minutes stopping the stream is certainly a sort of transaction not to be permitted.—Mr. *Cousens.* In case of high wind it is impossible for them to get their anchors up on a sudden, it must take some time.—Sir *John Hall.* There was not a high wind at the time I refer to.

1057. *Chairman.* Sir John Hall, the committee will be happy to hear any observations you may wish to address to them.

1058. Sir *John Hall.* I have reduced my observations to writing, and will beg to read them.

To the Worshipful the Navigation Committee of the Port of London.

The subject relating to the improvement of the navigation of the River Thames and the better accommodation of shipping frequenting the Port of London, which has occupied the

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the attention of the worshipful the navigation committee during the last three months, is one of vital importance to the trade, commerce and navigation of the metropolis. From the desire which has been evinced by the committee to acquire information, and the manner in which they have devoted their attention to the representations and suggestions which have been offered,—distinguished, as it has been, by a strict impartiality, and a regard for all the various interests involved in the consideration,—encourages a well-founded expectation, that the commercial and shipping interests of the Port of London will be effectively relieved from the impediments which are still permitted to exist in the navigation of the river, which, from the want of a more efficient performance of the harbour-service, arising to a certain extent from an apparent disinclination in some quarters to a cordial co-operation in the execution of the duties, and also, although in a more limited degree, to a defect in the powers possessed by the harbour-masters to enforce the regulations, have been found injurious to the best interests of a port which has justly been characterized as the emporium of the commercial world.

The corporation of London have also a deep interest in whatever relates to the trade of the metropolis, and are therefore materially concerned in every measure which shall have the effect, not only of drawing commerce to the port, but in bringing it as near to the seat of business as possible. Whereas if the evils which at present exist are suffered to continue, they not only tend to discourage and keep down the prosperity of the metropolis, but may ultimately divert to foreign ports many valuable branches of the commerce of this kingdom. That the supervision of a public service of such deep importance has been confided to a committee of gentlemen, who, under the provisions of the Act for better regulating and improving of the Port of London, are annually selected from the municipal body, and therefore intimately connected with some of the best interests of the metropolis, cannot but be highly gratifying to them, as it proves the confidence of the Legislature and of the public in the corporation; and hence a serious responsibility is created, which under existing circumstances renders it more necessary than ever that a vigilant superintendence shall be exercised, and every thing practicable adopted to meet the increased demands of commerce, and to provide improved accommodation for the shipping frequenting the Port of London; whilst the magnitude of the interest involved in this inquiry creates a just confidence that the committee will immediately apply itself to remedial regulations; and, should the powers now existing be found insufficient, that they will resort to higher authority for the means of giving them effect.

The committee having caused the parties interested to be furnished with copies of the representations from which the present inquiry has emanated, and having also permitted access to the minutes of evidence taken before them, an opportunity has been afforded, and is readily embraced, of laying before the committee in as convenient a form as possible, such observations as the nature of the evidence and information submitted to them appear to render expedient. Previous, however, to adverting to the several heads of inquiry, and the result of the investigation, it is considered right in the first instance to notice a gratuitous recommendation which a deputation from the ship-owners' society (Mr. George F. Young and Mr. Octavius Wigram,) has been pleased to offer to the committee; a recommendation which, under the circumstances, might well have been spared, namely, "that any representation from the St. Katharine Dock Company to a transit passage for ships should be viewed with a great deal of suspicion, as they had chosen, for purposes not of public importance, but for the promotion of their private interests, to place a dock at the very extremity of the navigable part of the river;" and further, "that as the object of the inquiry appeared to embrace a consideration of the means for bringing ships of burthen high up the river, they saw no justifiable cause for it, except to benefit the St. Katharine Dock Company, which the ship-owners did not recognise." Whilst the deputation proceeded also to desire the committee to believe that no complaints exist as to the state of the navigation of the river, because if any such crying evil did exist the ship-owners' society must have been in possession of the fact, whereas they had no complaint to make, no, not even a representation of such a character to offer, nor indeed had the deputation "any complaint of the state of the transit up and down ever made to them, nor had any occurred within their personal knowledge." Whilst one of them admitted that he had not examined the plans prepared, but entertained "an objection *in limine* to the whole of the proposed amended arrangements," although it appeared that he had not condescended to take the trouble to make himself acquainted with them in detail. The St. Katharine Dock Company are content to repose in the discriminating judgment of the committee, whether anything has appeared in their representation, or has transpired from the manner in which it has been sustained, to warrant the ship-owners' society in cautioning the committee against an attempt thus improperly imputed to the St. Katharine Dock Company, of seeking to obtain any exclusive advantages, or to derive a benefit at the expense of other interests. Such allegations, indeed, require no comment; but a certain part of the statement to which it is proper the attention of the committee should be especially solicited, is the assertion hazarded by the deputation, that the promoters of the St. Katharine Docks "had no purpose of public importance in view when they determined upon establishing them as near as could be to the seat of business." A representation totally at variance with the facts, and having a tendency to impugn the objects of the promoters of an undertaking which has already proved so eminently beneficial to the commerce and navigation of the port, by affording extended and improved accommodation, reduction in charges, open competition, and having operated advantageously in drawing business as near as possible to the heart of the City of London; nor can the committee have failed to notice the attempt which has been made to impress them with an opinion

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that a clear space of from 150 to 200 feet at the most would be quite sufficient for the purposes of navigation, provided the St. Katharine Docks did not exist. The deduction sought to be established is obvious: if it could be shown that the St. Katharine Docks offer no objects of importance, and do not contribute to the benefit of the commerce of the port, certainly a clear channel of 300 feet, as provided by the bye-laws, ought not to be retained for the useless purpose only of merely maintaining a communication with the St. Katharine Docks. It should be observed, however, that the London Docks and other commercial establishments of a public as well as of a private character, are also interested in the preservation of the channel of 300 feet, and the removal of impediments, being equally situated above the Lower Pool, all must suffer therefore in a proportionate degree from obstructions to the transit of shipping. Under these circumstances it becomes important to the St. Katharine Dock Company, whose representation the committee will recollect has been confined chiefly to the best means of maintaining a sufficient passage for the transit of vessels, without in any manner interfering or desiring to interfere with the general accommodation to shipping, that the facts connected with the original design of the St. Katharine Docks, and the degree of public benefit that has attended their construction, should, as briefly as possible, be brought under the immediate attention of the committee previous to entering upon the discussion of the more general points under consideration.

In the year 1824, the increased and progressively increasing commerce and navigation of the Port of London, together with the expiration of the exclusive privileges of the West India Docks, East India Docks, and London Docks, the improved commercial code of the country, as well as a want of increased wet-dock accommodation near to the seat of business, produced a manifestation of public feeling in favour of additional and improved warehouses of special security, connected with wet docks, more proximate to the City of London. The London Docks at the time did not afford a sufficiency of accommodation; the quays of that establishment were strewed with wines and spirits for which no room could be found; and the West India Dock Company had also been compelled to increase the warehouses, &c., whilst the eligibility of the site selected for the St. Katharine Docks met with the approbation of the merchants, traders and ship-owners, who felt a deep interest in the undertaking. Seeing that the absence of an establishment, of at least equal convenience to the London Docks, would leave the public exposed to the effects of a virtual monopoly, whilst the expected liberation of the East India private trade, upon the expiration of the exclusive privileges which the East India Dock Company then enjoyed, would induce the importers of East India produce also to seek for means of depositing their goods nearer to the seat of business, with a view to the benefit of convenient personal inspection and advantageous sale, and to avoid the risk and injury to which merchandize was exposed, attendant upon a land transit of between four and five miles distant.

The merchants of this great city were likewise convinced, that unless an actual competition in regard to rates was established, the objects of Government in their improved commercial policy, and particularly as respected the extension of the warehousing system, would be defeated. Accordingly, in the year 1824, a project was formed by a few of the principal merchants in the Port of London to provide additional wet-dock and warehouse accommodation at St. Katharine's. The promoters of the undertaking, one of a purely commercial character, were purposely confined to merchants, traders and ship-owners; and petitions in favour of it were presented to Parliament from several thousands of the principal merchants, bankers, traders and ship-owners of the city of London; from the owners and masters of ships frequenting the port; from the wine and spirit trade, and other important branches of commerce; as also from the merchants and ship-owners of Newcastle, Sunderland, Liverpool, Leith, Hull, Grimsby, Glasgow, Kircaldy, Lyme Regis, Yarmouth, Ipswich, Harwich, Colchester, Sheerness, Rochester, Dover, Ramsgate, Sandwich and Margate, Rye, Portsmouth, Newhaven, Cowes, Poole, Weymouth, Jersey, Guernsey, Dartmouth, Plymouth, Falmouth, Penzance, Swansea, Barnstaple, Padstow, Cardiff, Bristol, Cork, Dublin and Boston; and further, from the owners and masters of vessels engaged in the coasting trade with Scotland, and other parts of the United Kingdom; all of whom complained of the impediments and obstructions to which the navigation in the port was daily subjected from the crowded state of the Pools, the inadequate manner in which the duties of the harbour-service were executed, the heavy charges which existed, and the consequent necessity of additional wet-dock accommodation. The petitions further set forth, that unless prompt and effective measures were taken to place the harbour-service under improved regulations, the obstructions to commerce in the transit of shipping in the River Thames, augmented as they were by the daily increasing number of colliers, the most unmanageable class of shipping that frequent the port, it would have the effect of driving away the foreign trade. These and many other important reasons were urged upon Parliament in favour of the undertaking; and notwithstanding a most formidable opposition, pertinaciously prosecuted by local interests, representing upwards of twenty millions of property, and after a Committee of the House had specially reported, that "they were strongly impressed with the important benefits that would result if the sanction of Parliament were given to the application for the construction of the St. Katharine Docks;" the Legislature was pleased to sanction the construction of them, —an establishment which, within two years of laying the first stone, with an unexampled rapidity of construction, opened its gates for business, and, during the short space of about four years, has received within its walls upwards of 4,000 ships, many of between 500 and 900 tons register, most of which, but for those docks, would have discharged at Blackwall, (besides many kept below from the state of the Pool); also about 33,000 lighters, and upwards of 700,000 tons of merchandize landed and delivered. Whilst the throwing open of the

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the trade with China, now determined upon, must divert a large portion of it into the St. Katharine Docks, from the improved accommodation they afford for the deposit and examination of India goods; some of the directors being connected with the establishments of several of the principal East India agency houses in London and in the Eastern Archipelago. A body of irresistible evidence of the improper state of the river, of the impediments and obstructions which existed to navigation, of the imperfect manner in which the harbour-service was executed, was about the same period brought under the attention of Parliament, upon application for bills to construct the South London Docks and Collier Docks. The abuses, which were so demonstratively proved, accordingly led to a revision by the port committee of the regulations of the river, and additional authority from Parliament was obtained for carrying the remedial measures into effect. It is therefore with the object of giving due effect to those improvements, and to introduce some amendments which experience has shown to be requisite, that the representations from the St. Katharine Dock Company have been made.

From this succint narrative of facts, the committee will appreciate the degree of value which belongs to the statements of the deputation referred to, and of the assurance given that the narrowing of the channel "would be no injustice to ships going to the St. Katharine Docks." There is one other statement made by the deputation with reference to the docks where the ships in which they are individually interested usually discharge, which calls for observation, as, from the answer to a question put by a member of the committee, it might be inferred that the consignees of the cargoes on board such ships control the place of unloading; and hence, that if they expressed a desire that the ship should proceed, for instance, into the St. Katharine Docks, the vessel would be ordered in there by the owners as a matter of course. This, undoubtedly, would be the proper course; but the committee will judge from a communication recently received by the St. Katharine Dock Company upon this very subject, of which the following is a copy, in answer to a request addressed to the owner of the ship by the consignees of upwards of five-sixths of the cargo of the Fergusson from India, how far such an inference is consistent with circumstances; the owner in question, be it observed, being one of the deputation before mentioned.

My Dear Sir, Limehouse, Jan. 31, 1833.

The request you have taken the trouble of conveying to me, that the Fergusson may discharge in the St. Katharine Docks, is on every account so highly entitled to my attention, that it is not, I assure you, without considerable regret that I feel compelled to decline acquiescing in it. But the immediate contiguity of my residence and property to the West India Docks identifies that establishment so closely with my interest, convenience and feelings, that I am compelled to decide in favour of a similar application to your own from friends connected with those docks. I am very sorry for the personal inconvenience you have had in seeking me, and trust that my determination will not expose the consignees to material trouble or expense.

Believe me, my dear Sir, your's very faithfully,
(signed) *Geo. F. Young.*

It is worthy of observation, particularly after it has been stated "that the construction of the St. Katharine Docks had no purposes of public importance," that if this ship had proceeded into the St. Katharine Docks she would have been discharged in three days, whereas fifteen days were expended in unloading her in the West India Docks. Nor is this a solitary case; the Gilmore, another ship belonging to the same connection, and similarly circumstanced, was refused to be sent up to the St. Katharine Docks. She reported on the 19th of February last, and was not unloaded in the West India Docks until the 15th March, therefore twenty-four days were expended in discharging. The Hector, a third ship, under the same circumstances, arrived in the West India Docks on the 26th of February last, and was not discharged until the 11th March. These ships, it will be seen, notwithstanding the request of the principal consignees of the cargoes to proceed into the St. Katharine Docks, all went into the West India Docks. The alleged influence of the consignees being of no avail, and their immediate interests disregarded, whilst the principal part of them were compelled to lighter up their goods from the West India Docks to the St. Katharine Docks, as they would not have been equally saleable in the former place, exposed by the refusal also to serious injury from the consequent delay. May it not here be asked, whether these additional circumstances of such recent occurrence do not strongly show the estimation in which the St. Katharine Docks are held by the merchants? and, at the same time, prove the small importance it must be to the members of the deputation that a clear passage be preserved for the navigation of the river above Cuckold's Point, "seeing that interest, convenience and feelings," are avowed as identifying them with the West India Docks. In addition to which it may be stated, that the graving and repairing docks, in which those gentlemen are immediately concerned, are situated near to the entrances to those docks.

From the facts stated, and the circumstances referred to, it is confidently expected that the committee will be of opinion that the St. Katharine Docks, the construction of which was in an especial manner encouraged by the Legislature, and promoted by the commercial interest of the metropolis, and upon which upwards of two millions have most judiciously been expended, have contributed materially to the accommodation of the trade and shipping of the port; and that the establishment will, therefore, be viewed as being of sufficient "public importance" (notwithstanding the allegation of the deputation from the ship-

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owners' society) to share, in common with the great interests connected with the commerce of the metropolis, those advantages which were designed through the means established by the regulations for the improvement of the port, and entitle them to receive protection from the constituted authorities to whom the supervision of the navigation of the river has been confided. Mr. Burgess, one of the leading members of the coal-trade committee, frankly admits that the construction of the St. Katharine Docks has tended materially to improve the navigation of the river, and to procure increased waterway.

It is now proposed to invite the attention of the committee to the subject generally, and with that view to bring before them the points for consideration in the most convenient shape, by classifying them under two heads:—First, The existing impediments and obstructions to the navigation in certain parts of the river, with a statement of the immediate causes thereof, and the remedies to be applied. Secondly, to consider whether remedial regulations can be establisned under the existing legislative authority, or whether all or any of those which have been suggested require further powers; and if so, whether they are to be deemed of sufficient importance to justify an application to Parliament to amend and enlarge the 10 Geo. 4, c. 124.

As regards the first head of inquiry, it would be a waste of the valuable time of the committee, and an insult to their understanding, if an attempt were made to occupy their attention with the details of the difficulties and obstructions which are almost of daily occurence in the Lower Pool. They are, indeed, so notorious, that it is matter of astonishment how any intelligent persons can be found to question their existence. It is true, however, that of the parties examined by the committee, two only are found whose opinions, to a very limited extent, are opposed to the body of evidence which has been adduced upon this branch of the subject; first, Mr. Robert Smith, who wished it to be understood that no such impediments exist, because, forsooth, upon an occasion particularly referred to, "he accompanied the worshipful the Navigation Committee upon an excursion down the river; when, upon arriving in the narrow channel (the Pool), he was quite astonished to find so much room." But these are occasions of so peculiar a character, that it will not create much surprise if, when they do occur, the harbour-masters should evince more than usual vigilance: and the circumstances of themselves will, therefore, account for the obstructions in such instances having been removed. But if a clear Pool can be kept on those occasions, why not upon others?

It is not however proposed by these observations to undervalue the great weight which Mr. Smith attaches to his own opinion: as he has gravely assured the committee that "had *he* been a member of the Port Committee when the bye-laws were framed, a clear passage of 300 feet would never have been granted;" whilst he does not hesitate at the same time to inculpate their proceedings upon the ground of their not having resorted to opinions of practical men; a statement which the minutes of their proceedings will sufficiently disprove, and acknowledging in the same breath (upon cross-examination), that he does not know how many ships additional could be accommodated in the stream if, as he recommends, the channel were reduced from 300 to 260 feet.

Next to Mr. Smith's evidence follows the negative testimony of the deputation from the ship-owners' society, who could not bring themselves to believe that evils existed because the society had no official knowledge of them. Mr. Drinkald, however, whose interests are in no small degree identified with the West India Docks, and assures the committee, "that no ship of above 200 or 300 tons ought to come so high up into the port as Union tier," which is below the St. Katharine Dock entrance, has admitted that, not long ago, he saw the passage through the Lower Pool reduced to between 60 and 70 feet in width, when the stoppages and confusion were so great as to prevent ships from passing; and so much does he appear to have been impressed with alarm at the danger vessels would be exposed to in passing through the Pool, from the narrow state of the channel, that it may be noticed as an incident, that he considered it right to communicate his fears to a clerk in the service of the West India Dock Company (stationed at Gravesend to board ships), who having promulgated the same, some captains were induced to take their ships into the West India Docks to avoid the alleged dangers of navigation through the Pool. And, but for the connexion alluded to, it might have been supposed that Mr. Drinkald's conviction of the danger which a crowded Pool produced would have induced him rather to approve of 300 feet width being kept for the purposes of navigation. The committee cannot, however, have forgotten the question which Mr. Drinkald quaintly put to them, "whether all the trade of the river is to be annihilated because a ship of 600 tons is to be got into the St. Katharine's Docks?" nor can they have omitted to notice his decided disapprobation of ships being towed past the West India Dock entrances, an improved mode of transit, which he wishes to persuade the committee creates obstruction; whereas it is obvious that a ship, towed up to the St. Katharine Docks, occupies only a width of about 40 feet during her passage, whilst if she drove up athwart the tide, the space required would be from 200 to 250 feet. All the witnesses, including even the harbour-masters, have preserved a studious silence upon the very great benefits trade and navigation have derived from the introduction of towing by steam; but it is of the first importance that the committee should be apprized of them. Vessels in the ordinary mode of proceeding up the river with a foul wind, occupy usually from two to four tides, according to circumstances, in reaching the place of discharge, whereas when towed they are one tide only; thus ensuring dispatch to the merchant and ship-owner, and relieving the river from protracted incumbrances.

Mr. Drinkald, who is a practical man, and occasionally passes up and down the Pool in his visits to and from Gravesend, has borne strong testimony to the fact of its crowded and dangerous state, nevertheless, "that he has never heard of any complaint of the state of the river

river except from one place," meaning the St. Katharine Docks, which leads me to notice an attempt invidiously made by several of the witnesses to impress upon the Committee, that complaints of the state of the Pools are never made by any other public bodies, or persons, than the St. Katharine Dock Company. It must be immaterial from whom complaints proceed, so long as they are well founded; and it is quite true that the St. Katharine Dock Company, although reluctantly, have been compelled to make many remonstrances in consequence of representations made to them by pilots, captains of ships, and others, who, aware of the deep interest the Dock Company have in preserving a channel of communication with the docks, have brought the facts of impediments and of damage done to ships passing through the Pool under their especial notice. The establishment has severely suffered from the want of a clear passage being kept, and, as the formerly existing prejudice to bringing ships up so high has greatly subsided, the only objection now offered by captains, pilots and ship-owners, to taking ships into the St. Katharine Docks, is the risk of damage in passing through the Lower Pool. From the crowded state in which it is nearly at all times permitted to remain, trade also suffers material injury and delay, and an unnecessary expense is created by the removal of goods in craft. The St. Katharine Dock Company having, during the last year, received by lighters no less than 19,000 tons of goods from vessels discharging in the lower docks, most of which vessels, but for the impediments alluded to, would have found their way into the St. Katharine Docks: thus affording other instances of the advantages which a place of deposit proximate to the seat of business affords. Four days ago, the Lord Eldon of 550 tons, from Bombay, having a cargo of East India goods, consisting of 4,480 packages, was sent into the West India Docks for the foregoing reasons; 4,268 packages of which are lightering up into the St. Katharine Docks. Is it therefore matter of surprise that, under such grievous circumstances, the St. Katharine Dock Company should complain, and that the merchants and others should urge them to use their efforts to cause the obstructions in the river to be removed?

Assuming that the committee must be fully satisfied that obstructions and impediments to the navigation of the river do to a very great extent exist, nothing further will be offered on this part of the subject; but, prior to proceeding to the next point of inquiry, a mistake into which Captain Fisher has no doubt unintentionally fallen, must be noticed: he has stated to the committee "that it never was contemplated by the Government, or the promoters of the St. Katharine's Docks, to introduce large vessels into them."

In the first prospectus published by them on the 24th February 1824, the following paragraph appeared:—"From the depth of water which will be secured off St. Katharine's and its vicinity, every facility will be given for the reception in the docks of ships of 700 tons and upwards, which, with the assistance of steam-vessels, may be brought up from Blackwall without risk or delay." But for that object, indeed, why sink the chamber of the lock five feet deeper than those of the other docks, and provide for a greater depth of water? Besides, one of the principal branches of trade to which the use of the docks was professedly to be applied, was the East India trade, in which few but large ships are employed. Captain Fisher must have also forgotten that the opponents to the Bill brought a strong body of evidence to prove that no ships above 250 tons could ever get up to St. Katharine's; whereas some of the pilots who gave testimony to that effect, have since brought up ships of upwards of 750 tons.

It is now proposed to proceed to the point next in rotation for inquiry, namely, the causes of the obstructions complained of. These are most fully detailed in the evidence and explanatory documents now before the committee. The impediments are chiefly attributable to a want of observance of the bye-laws, arising in a principal degree from a lax mode of executing the harbour-service, in which, unfortunately for the public, a want of cordial co-operation and discipline exists; and, lastly, from a defect in the powers possessed by the harbour-masters in some instances, to enforce the regulations; which indeed is admitted by all parties.

The Lower Pool is the narrowest part of the river, varying in some places from 480 to 550 feet in width, from shore to shore, at low-water mark; and although the bye-laws fix the maximum number of ships to 20 in any one tier, the committee have it in evidence that frequently from 25 to 26 colliers (some of the witnesses have stated even a greater number), are permitted to moor in those tiers, the most confined part of the river, and this with the knowledge and sanction of the harbour-masters, as stated and illustrated by Mr. Cousens, in his report dated the 30th January last, in answer to a representation from the St. Katharine Dock Company upon the unnecessary obstructions which existed in the Lower Pool in December last; in which report he neither attempts to deny the obstructions or the narrow state of the channel, nor does he think it worth while to offer any reasons why so gross a violation of the bye-laws should have been permitted to continue; but on the contrary, as if perfectly familiarized with the non-observance of them, admits that at Bell-wharf tier 25 colliers, Cole-stairs 24 colliers, Stone-stairs 23 colliers, Ratcliff-cross 22 colliers, &c. were moored, and had been allowed by the harbour-masters to remain in those tiers for many days, and acknowledges that the passage had consequently been narrowed; whilst it is in proof that, at the period in question, it was at one part only 116 feet; and the committee have it in evidence that at other times the passage has only been 60 feet wide, and sometimes completely blocked up for hours consecutively, so that no vessel could pass. But Mr. Cousens further avows unhesitatingly, that during the last 14 years from 24 to 26 sail of colliers have constantly been permitted to lie in the tiers off Bell-wharf, although the bye-laws, during two-thirds of the time, limited the number to 15, and since to 20. This statement, however, is directly opposed to Captain Fisher's evidence, who assures the committee, that allowing for five tiers of colliers between the Regent's Canal entrance and

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Shadwell Dock, 18 in a tier, but not so many in some, is all there would be room for. Can the committee under such circumstances feel any surprise at obstructions, when one of the responsible officers of the establishment admits that, during 14 years, he has been guilty of an uninterrupted inattention to his duty. Even last Sunday and Monday, as if to evince the high degree of respect and attention which the harbour-masters are desirous of paying to the importance of the present inquiry, at a period too when not more than about 70 colliers were lying in the Lower Pool, there were 24 moored in Cole-stairs tier, and 23 in Bell-wharf tier, being seven more than the bye-laws allow, by which the passage was narrowed to about 160 feet, and this without the slightest cause or pretext. The committee will at the same time observe, that at the time specially referred to by Mr. Cousens, other parts of the river were in no manner thronged, and that no excuse has been attempted for permitting such an impediment to the navigation to continue at the time.

It is evident that one of the principal causes of the obstructions in the Lower Pool arises from the indisputable fact, that more ships are permitted to moor in the tiers in that part of the river than can be conveniently placed, with reference to the general accommodation required and an uninterrupted transit to shipping. The bye-laws, after a minute inquiry, and the most attentive consideration, were framed so as to provide for a clear channel of 300 feet; and the necessity of preserving this regulation, and scrupulously enforcing it, has been most conclusively established in evidence; but so long as permission shall be given for more than 15 colliers to moor in any one of the tiers in the Lower Pool, it will not be possible to secure to the commerce and navigation of the port the advantages of a convenient and safe access; and it will, no doubt, appear extraordinary to the committee that the harbour-masters should have permitted them to remain in ignorance of so important a fact, as that a width of not less upon an average than 25 feet (stated at 26 feet 6 inches upon a practical survey) is necessary for the accommodation of every collier in tiers, whereas all the plans which have hitherto been laid before the committee to guide their judgment in determining the number that can be conveniently stowed in each tier (the mooring plan of Sir John Hall excepted) allow only a space in width of 20 feet per ship, thus providing, for instance, 400 feet as a sufficient width for the mooring of 20 ships, whereas 500 feet at the least are necessary. To this unaccountable blunder and radical defect in the former plans submitted by the harbour-masters, who have recently transmitted another arrangement to the committee equally defective, although they assure them "that they submit it with a perfect knowledge that there will be a sufficient space for all purposes of navigation," the difficulty which has hitherto arisen in keeping the channel of 300 feet free from stationary obstruction may be assigned. The harbour-masters' plan just alluded to, of the 17th of February, even suggests that 22 colliers may be moored in Cole-stairs tier and Bell-wharf tier, which would, if adopted, require 550 feet of width in each tier, leaving a space of less than 200 feet for navigation. The committee will, however, recollect that Captain Fisher has very fairly admitted that 18 in one tier is as many as can be accommodated.

The committee, upon examining the several plans, will discover the defects alluded to; when it will be equally apparent that more than 15 colliers, the number originally limited by the bye-laws framed under the authority of the Act of the 39th Geo. 3, c. 69, for the improvement of the Port of London, cannot, consistently with the space required and the shifting of the tiers upon a change of wind, be allowed to lie moored in any one of the tiers in the Lower Pool.

Some of the witnesses give it as their opinion, that in the Lower Pool not more than 12 colliers should be permitted in one tier, which is sustained by the whole of the evidence of the Elder Brethren of the Trinity-house, pilots, captains of ships, lightermen and other persons practically connected with the navigation of the river, given before the Committees of both Houses of Parliament during the years 1796, 1797 and 1799, and therefore entitled to great attention, and most satisfactorily prove, that when the committee are entreated to limit the number of colliers in the tiers in the Lower Pool to 15, according to the former bye-laws, the interests of the public require that it should be complied with. Besides, how small the sacrifice, if any, seeing that so trifling a diminution would secure so important an advantage to the navigation of the port.

No collier should be permitted to lie at single anchor, or to moor for the purpose of discharging, between the Regent's Canal entrance and Limekiln Docks, where there is only a width from shore to shore at low water of from 480 to 550 feet. The space along the north shore, as described, ought to be appropriated only to a limited number of light colliers, which under proper regulations should be there permitted to take in their ballast. It is a part of the river where it is of the utmost importance that the water-way should be kept as clear as practicable, as ships coming up with a foul wind, upon rounding Cuckold's Point, require room to go about and drive up athwart the tide through the Lower Pool, a large ship requiring not less than from 200 to 250 feet space, according to circumstances, for that purpose, whilst the current at the entrance into the Pool sets bodily over to the north shore. The necessity of this part of the river being kept clear is rendered still more important from the practice of ships running down with the wind from the west and south before high water; they keep in the slack near to the south shore, where they lay to, or bring up by a kedge, until high water. For these reasons it would also be desirable that light colliers in the Lower Pool, when shifting out of the tiers, should warp down along the north shore, instead of sheering out into the middle of the stream, which they frequently do, some even with coal-craft alongside, and sometimes with a ballast-lighter also made fast to the other side, by which the navigation is frequently most seriously and unnecessarily interrupted.

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The time for light colliers to move out of the tiers should also be regulated, say an hour before low water, and within an hour after flood; and craft should be discouraged driving athwart the tide; if this practice were discontinued much more space would exist for navigation, and the wash from the swell produced by the paddles of the steam-boats would do them no injury. Captain Fisher, the senior harbour-master, admits frankly that he sees no difficulty in keeping 300 feet clear if proper powers are granted; indeed he adds, that prior to St. Katharine Docks they never had less, and at times more; whilst the harbour-masters generally [see their Report, 27th February (307)]—discrepancies in the evidence given by some of them individually will be noticed hereafter—are of opinion that accommodation for 170 colliers above Limehouse at one time would be sufficient for all the legitimate purposes of the coal trade, and that this may be easily provided upon deepening the water in two or three places, and arranged so as to afford sufficient space for the purpose of free navigation of ships of the largest class.

Mr. Benyon, one of the coal committee, however, thinks that the accommodation ought not to be less than for 200 ships; whilst Mr. Cloves and Mr. Barchard consider that it should be increased to about 250; the latter gentleman admitting at the same time, "that the colliers in the river are a nuisance." The coal committee generally, and Mr. Horne in particular, loudly complain of the want of attention on the part of the harbour-masters, and refer to instances of considerable duration, in which the great excess of ships in tiers, notwithstanding remonstrances, have been permitted to remain, an obstruction which they feel the injury of in common with other trades. They also in their memorial admit the necessity of "not filling the tiers so full as now allowed by the bye-laws;" that is to say, to reduce the limited number under 20.

From the official returns of the harbour-masters, it appears to be their opinion that there is accommodation in the stream, between Cuckold's Point and London Bridge, consistent with the preservation of a clear space of 300 feet, equal to 441 ships, exclusive of 206 at the wharfs, &c. The committee of the coal trade, it will be seen, require that two-thirds of the stream stations shall be exclusively appropriated to the use of colliers; a much larger proportion of the river accommodation than, with a due consideration to the interests of other branches of the navigation, can be allotted to their use. The coal committee have within these two days, however, submitted an amended plan, by which it appears that they will be satisfied if accommodation can be found for about 218 colliers. But assuming, for argument's sake, the fact to be that such is the least number that will satisfy the demands of this important and daily increasing branch of the trade of the port, it is indisputable that additional means of accommodation must of necessity be provided, and that nothing short of wet docks will meet the exigency of the case, more especially upon the arrival of large fleets (sometimes the effect of occasional combinations in the north), when means of accommodation in the Pools cannot under any circumstances be given. It behoves, therefore, the parties interested in that branch of navigation to apply themselves earnestly and immediately to provide the required additional accommodation in the manner suggested, so as to anticipate or avoid the necessity of legislative interference, the acknowledged evil being one of progressive increase, and must, if remedies are delayed, operate to the incalculable injury of the commerce of the port. The coal trade has already more than its share of the river accommodation; it has increased 10 per cent. since 1828; that is to say, from 6,710 ships in 1828, to 7,394 ships in 1832, and is progressively increasing. It will not therefore be possible to give additional accommodation without ejecting other branches of navigation.

It may here be observed, that wet docks situated on the south side of the river, possessing proper ship entrances in Limehouse Reach, with capacious basins for the reception of a number of colliers in one tide, and having also entrances above King-and-Queen stairs, with basins confined to the admission and egress of craft, would be the most eligible, and dispose of the only real objection which has been offered to coal ships discharging in docks; as it is capable of satisfactory proof, that the delivery within such docks would take place with equal if not greater dispatch, and generally at a less expense, with a great saving and security to the ship-owner. Mr. Barchard, one of the influential members of the coal-trade, freely admits, that, unless accommodation can be found for colliers in the stream to the extent demanded, that additional means must be provided elsewhere.

It has indeed been noticed by some of the coal committee that the St. Katharine Docks and London Docks had refused to accommodate colliers for discharge; the reasons are obvious: it is well known that coal-dust in the discharge of such cargoes would be highly injurious to most articles of merchandize, and that such arrangement would also be strongly objected to by the owners of ships loading out; the success of their voyages depending in many instances upon passengers, who are frequently captivated by a clean-painted and neatly fitted ship; a state of things which would ill accord in collision with colliers; and for the same reasons they are usually placed together in the river, as the coal-dust would injure corn, provisions, &c.

But the question now immediately before the committee is, what number of colliers can with the present means be conveniently accommodated in the stream, above the Regent's Canal entrance? Presuming that the committee will be of opinion that no tiers should be allowed near Kidney-stairs, the following statement has been prepared, showing the means of accommodation which it is considered can be afforded; and exhibiting at the same time the comparative number of ships allowed by the bye-laws, and the arrangement suggested by the harbour-masters, and which may be carried into effect at a small expense of dredging.

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	Proposed Plan.	Present Bye-laws provided for.	Harbour-masters' Plan.
Ratcliff-cross lower tier	12	16	16
Do. upper tier	14	18	18
Stone-stairs	14	18	20
Bell-wharf lower	15	20	22
Bell-wharf upper tier, commonly called Cole-stairs	15	20	22
At Shadwell-dock lower tier may be accommodated, without any real interference with the new entrance to the London Docks, although partly within their limits	12	12	—
	82	104	98
It is further submitted, that accommodation may be found for the following number of colliers, in the tiers named, without interfering with the coasters, by a slight dredging:—			
King James's-stairs, small ships	8	10	—
New Crane-stairs	8	10	—
North Shore	98	124	98
South Shore.			
Mill-hole lower tier	10	10	18
Do. upper-tier	10	10	20
Hanover-hole	10	10	18
Do. upper tier	10	10	16
Church-stairs	8	10	—
Space occupied by chapel ships	16	—	16
South Shore	64	50	88
Recapitulation.			
Total in Lower Pool, and on the South Shore, including space of the chapel ship	162	174	186
Add, the number usually accommodated in the Upper Pool, under the name of Newcastle traders, Regent's Canal, &c.	30	30	30
Total Colliers	192	—	216
Besides accommodation at the Port of London moorings, off Deptford, for about	30	—	30
Colliers	222	204	246

Is not this a mistake?

Subject to a deduction of twelve, if the London Dock Company object to Shadwell tier; if the committee however should be of opinion that a few ships might, without hindrance, be accommodated between the Regent's Canal and Limekiln-dock, from 10 to 12 colliers, in two tiers, might perhaps be there stationed upon emergencies, which would increase the colliers to 234 sail. It is, however, strongly recommended not to do so.

From the foregoing statement it will be observed, that accommodation between the Regent's Canal entrance, the basin of the canal inclusive, and London Bridge, may be provided for about 220 colliers; the harbour-masters at the same time being of opinion that 170 would be sufficient, whilst it is proposed to confine the mooring in the stream in the lower pool to 82 ships, being the most important and the narrowest part of the river, and as many as can by possibility be there properly accommodated, due regard being at the same time had to a convenient and safe transit. This improved arrangement is equally important to the London Docks, and to all the wharfingers above Limehouse, and even above bridge, (some of whom have petitioned the committee,) as it is to the St. Katharine Dock Company, as every ship or craft proceeding above Cuckold's Point must pass through the Lower Pool. It is worthy of observation, that the evidence conclusively proves that the obstructions are confined almost wholly to the Lower Pool, which, practically, is a narrow funnel, through which all ships passing in and out of the port must run the gauntlet at imminent risk, so long as matters are permitted to remain as now managed, and this, forsooth, in one of the most frequented ports in the world, reflecting discredit upon the constituted authorities of the port.

There

There is another important point connected with this topic, to which the attention of the Committee is particularly invited. In the plans which have been submitted, the space within the *radius* of the limits of the several dock entrances, as provided by their several Acts respectively, is delineated and left clear: whereas upon referring to those limits it will be observed, first, that those of the St. Katharine Docks are only one half the space which has been allowed to the other docks, although Mr. Drinkald and Mr. Cousens have informed the committee that they possess, or assume, equal privileges; whilst the St. Katharine Dock Company, be it observed, also accommodate a considerable number of coasters and steam-boats at the adjoining wharfs, &c. within their limits; and considering it possible that so large a space as 1,200 feet is not required for the purpose of keeping the middle and lower entrances to the London Docks clear, it is probable that, upon a representation to the London Dock Company, some arrangement might be conceded, provided it shall appear that the accommodation (although to a limited extent) can be afforded within those limits without impeding the entrances. And it may here be noticed, that some of the witnesses have stated, that the place where the principal dock-buoy to the upper entrance of the London Docks is situated is objectionable, and that it might be removed more towards the entrance, with great advantage to the navigation of the river generally, without any detriment to the Company. It has been stated by the harbour-masters in their returns, that 473 ships, including 30 at the Deptford moorings, that is to say 190 colliers, and 283 coasters, can be accommodated in the part of the river before referred to; and add to these the 206 which, according to the regulations, are permitted to lie at the wharfs, &c. but which more frequently amount to from 250 to 280; those returns show means of accommodation, notwithstanding the limits of the dock entrances above the Pool, for about 700 ships, providing at the same time a clear passage of 300 feet in width.

Mr. Elmes, the surveyor to the Port of London, has submitted a plan to the Committee, according to which the number of ships which could be accommodated in the stream between London Bridge and Limehouse-hole, is stated at - - - - - - 475

And on the Surrey side, from Battle-bridge to Deptford, including four tiers off the Victualling-office - - - - - - - - - - - - 285

760

Add these to the vessels accommodated at the wharfs, &c. - - - - - 250

Would make a total of - - ships 1,010

Besides which, there are 11 King's moorings at Deptford, equal to the accommodation of 77 large ships in addition, also providing for a clear passage of 300 feet. Some of the suggestions contained in that report are valuable, and deserve more than ordinary attention; but the plan generally, it is feared, would however involve an expense, the amount of which would be a bar to its adoption.

If the accommodation to colliers above Limehouse Reach be limited from 170 to 180 ships, and the harbour-service effectively performed, it is confidently believed that sufficient means do exist, for the present at least, to meet all the demands of the general trade of the port; although it cannot be denied that, sooner or later, with a view to sufficient and convenient accommodation, additional means must be provided for colliers, by which the maritime highway of the Thames may be usefully and effectually preserved. Some misconception appears to prevail, as if it was intended that a passage of 300 feet should be preserved clear and without any interruption. Occasional interruptions, produced by floating and moveable bodies, cannot be avoided; but these do not produce the evils to which the attention of the committee has been invited—such obstructions in a very short time relieve themselves. The impediments complained of are fixtures, colliers at their moorings, arising from the tiers being too crowded, and not being well regulated or attended to, and at times also from a wilful violation of the bye-laws, without any attempts to remove the obstructions or to punish the offenders. Will the harbour-masters furnish the committee with a return of the number of summonses they have applied for, and enforced against parties who have been guilty of a breach of the bye-laws and regulations since 1828?

Mr. Drinkald, who also represents upon this occasion the lightermen, and in his evidence strongly objects to steam-boats entering the Pool, and whose antipathy to steam-navigation has not been diminished by his holding the situation of ruler of the Watermen's Company,—has volunteered a witness before the committee, whose evidence, under such circumstances, must be supposed to have his concurrence. Mr. Edward Russell Bell, who, upon cross-examination by the committee to ascertain his means of information, admits that he is neither a pilot, master of a ship, or lighterman, but is a wharfinger above bridge, informs the committee, that with the object of refreshing his memory on certain points about the river preparatory to his examination, he had been to take a view below bridge; is the gentleman who has been presented by Mr. Drinkald to enlighten the committee upon points connected with the navigation of the Thames to the eastward of London Bridge; but his information upon this topic really appears to have been merely introductory to acquainting the committee that petitions are signing by watermen, lightermen, and steam-boat proprietors, praying Parliament to interdict steam-boats coming higher up the river than Greenwich, which he thinks would be a most desirable measure, and one which would

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would much benefit the public; his reasons are on record; and he adds, that the owners of steam-boats are particularly desirous of seeing it established; and further, that one of the petitions emanated with the Margate Steam-Packet Company. After the committee are informed that neither the Margate Steam-Packet Company, or the General Steam-Navigation Company, have any knowledge of such a proceeding, that they are not petitioners, but are decidedly opposed to the project in question, it would really be a waste of the valuable time of the committee to trouble them at any length upon Mr. Bell's evidence. It is possible, however, that some of the proprietors of certain steam-boats which remain at Blackwall and Greenwich may have joined in the petitions, and as some of those boats are accommodated at the West India Dock Company's Steam-Packet wharf, Mr. Drinkald, no doubt for the reasons before stated, would consider the object of the petitions important to the prosperity of that branch of the establishment, and of benefit also to the steam-boat concern in question. Mr. Bell's brother is agent also to two steam-packets which do not come higher up than Greenwich. In the first place, it must appear to the committee that Mr. Bell's authority, as a wharfinger above bridge, in respect to the state and means of navigation of the part of the river under discussion, cannot be considered as derived from the most eligible source of information; and as his statement relative to the proceedings and wishes of the steam-boat proprietors, from its apparent inaccuracy, is entitled to still less attention, the committee may also think that the extraordinary reasons which he has assigned in support of his allegation, that the public would be benefited by keeping the steam-boats below Limehouse, are undeserving of notice. Neither can it escape the discernment of the committee that this notable project follows very close upon the application to Parliament for leave to construct a railway to Greenwich, an undertaking to which Mr. Bell, from the circumstance of his having strongly promoted the petitions in its favour, cannot be supposed to be unfriendly. That certain of the watermen should join in supporting a plan which would tend to revive at Greenwich the riot, confusion, inconvenience and risk of life, to which the public were exposed from the conveyance in boats to and from steam-packets, is not surprising; but the St. Katharine Dock Company may be permitted to remind the committee that they were the first, and at a very great outlay, to provide the public with means of security and unexampled accommodation in landing from and embarking on board steam-boats alongside of a wharf replete with every convenience. It is but an act of justice, however, to Mr. Bell to add, that after he had unburthened his mind of the circumstances connected with the project in question, he acknowledges, upon cross-examination, that his reasons for desiring to keep steam-boats as low as Greenwich are, first, to benefit the watermen, upon whose merits he has pronounced a warm eulogium; and, secondly, that goods whilst transiting in lighters may not be exposed to damage from steamers running against them; of which, however, he has offered no proof, or that he has been a sufferer.

The harbour-masters have been called upon by the committee to give their opinions, *seriatim*, upon some of the points under consideration; it is remarkable, however, that those opinions should be at variance with some of the statements made by them in their official reports; but as the latter contain the result of deliberate and mature consideration, they may be more safely relied upon. The evidence of Mr. Cousens particularly calls for observation. He desires the committee to understand that the St. Katharine Docks enjoy a space of 1,200 feet, which is just about as accurate as the impression his statement appears intended to produce, that the St. Katharine Dock Company, for no useful purpose, are usurping an exclusive use of a large portion of the river. He says that "a steamer sometimes is accommodated in the space where two tiers have been destroyed." Mr. Cousens should have said "removed." But, upon being pressed, he admitted he had seen as many as two, nay, at last, even three; whereas he cannot but know that buoys have been laid down and appropriated, by special authority from the committee, for the exclusive accommodation of steam-boats, the average number being during the season from 6 to 8, nay, 12 at times, lying at the moorings. Neither has Mr. Cousens had the candour to inform the committee, that, in consequence of steam-boats being there accommodated, the moorings above the Tower have been *pro tanto* relieved, and room provided in that part of the river for an additional number of coasters, the arrangement being, in fact, a mere substitution, although one of great advantage and convenience, to which he ought, with due regard to the object of the inquiry, and as being consistent with fact, to have added, that, when the two tiers are not fully occupied, coasters are permitted to lie there: so that, in truth, the space in question is in no manner devoted to the purposes of the docks; and he might have added that it is also acknowledged that the dock company have always afforded to the public and to the adjoining wharfs every possible facility and accommodation, without reference to the exclusive privilege of space which they possess, which is confined to 300 feet; notwithstanding, Mr. Cousens has chosen to magnify it into a practical exclusive occupation of 1,200 feet; the 300 feet at the same time being less by one half of the extent of privilege enjoyed by the other docks. Mr. Cousens next gravely states, that if a passage of 300 feet is to be kept, it will exclude 450 sail of ships, that is to say, 100 colliers and 350 corn ships and coasters from the Pools, which would, in that case, be proscribed from approaching the City of London nearer than Woolwich. In what manner he has arrived at so extraordinary a conclusion does not however appear.

The examination by the port committee into the means of accommodation for colliers, coasters, &c. in the river, consistent with the preservation of a proper space for navigation, and a revision of the bye-laws, commenced in 1827. The present bye-laws were accordingly framed, and approved of by the common council in August 1828, when they were printed for general information, and after twelve months had been allowed to the public

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for consideration, they were enacted on the 24th September 1829. The harbour-masters had the subject constantly before them upwards of eighteen months, and they were then of opinion that sufficient accommodation could be provided for the trade of the port, regard being had to a clear passage of 300 feet being kept for the purposes of navigation; and even the deputation from the Ship-owners Society at last, also, inferentially declare that 300 feet should be kept, "as on the whole the bye-laws had been well considered and digested, and that it would be cruel to annihilate them to introduce a new code."

The question which therefore naturally presents itself is, whether, after what has been stated by some of the harbour-masters, the shipping frequenting the port has materially increased since 1828. The following copy of official returns will show that, as compared with the preceding year, the number of coasters had decreased, whilst the colliers had increased 684.

Comparative State of Shipping that entered the Port of London in 1828 and 1832.

	1828.	1832.	Increase.	Decrease.
Colliers	6,710	7,394	684	—
Coasters	11,129	11,060	—	69
Ships in foreign trade	4,573	4,018	—	545
	22,412	22,472	684	614

Total increase in 1832 - - 60

N. B. The St. Katharine Docks accommodate annually about 1,100 ships, and about two-thirds more upon an average in number than were displaced from the entrance, besides about 9,000 lighters; the lightermen converting the docks into lighter-ponds for the safety of their craft, which clears the river to that extent; whilst the practice of docking ships at night likewise tends to relieve the navigation: a system first introduced by the St. Katharine Dock Company.

Do not these facts, in the most conclusive manner, negative the statements of the harbour-masters, and further show that the removal of 450 ships to Woolwich, as suggested by Mr. Cousens, is a bugbear unworthy of attention. At the same time, it is evident, that if the harbour-service is to be performed as it has hitherto been, it would be hopeless to expect that any passage, however limited, would be kept for the purposes of the uninterrupted transit of shipping. [*N. B.* Since this was written a representation from the pilots at Gravesend has been made to the St. Katharine Dock Company, of the shameful state of the Pool at Globe-stairs; one of them refused to take charge of a ship bound to the London Docks; and the captain of the Kayle, from Demerara, ordered in there, refused to come up through the Pool, and took his vessel yesterday into the West-India Docks. 9th April 1833.]

Mr. Cousens states, that the places where he has found it most difficult to preserve 300 feet in width are Globe-stairs, Pelican-stairs, Union-stairs, Hermitage and Tower-stairs; the latter place may, however, be at once disposed of, as not situated within the operation of the Act of Parliament privileges to which Mr. Cousens refers; but he has admitted that in the Lower Pool it has been his practice to permit from 24 to 26 colliers to lie in a tier, thus occupying about 150 feet more in width than the bye-laws allow. Is not Mr. Cousens, under such circumstances, highly culpable for such a violation of his duty? And as to ignorance of the fact, this cannot be pleaded, as Mr. Cousens assures the Committee, in his letter of the 8th March, that he has in his possession a registry "kept during the last six years, which will show the number of ships moored in tiers, distances kept in the pools, &c., and where 300 feet space has been always observed on the stations." It will be curious to see the reasons assigned in this record for a perpetual breach of the bye-laws and regulations, for not having removed the ships from those tiers where the number exceeded that which is allowed. Mr. Cousens will, no doubt, produce this document; but as the bye-laws require that the harbour-masters on duty shall report from time to time, and immediately on their occurring, to the superintending harbour-master, for the information of the committee [see Bye-laws, No. 16], the impediments and obstructions, &c. which occur to the free transit of shipping through the pools, &c., an opportunity will be thus afforded of comparing those documents. Is it not to be presumed that the reports in question have not been regularly made by Mr. Cousens to Captain Fisher, in conformity with the bye-law; if, however, it should appear to be otherwise, will the Committee permit so important a disregard by Mr. Cousens to his duties to pass unnoticed?

It might here, indeed, be asked, considering the acknowledged frequency of the crowded state of the pools, a state of things which is made the condition of night-duty, how often the harbour-masters have given the public the benefit of their services upon such occasions? Equally important would it be to ascertain accurately, if possible, the time when the harbour-masters go on duty and remain afloat, which invites inquiry as to the manner in which the provisions of the bye-law (No. 14) are complied with, it being a matter of general observation that the harbour-masters are very seldom seen in the Lower Pool. If the rotary duty was continued during one month or a fortnight, the harbour-master on duty would have a familiar knowledge of the arrangements from day to day; they would not be in such frequent collision, and the duties would be much more efficiently performed.

But to return to the allegation that 450 sail of ships must be driven out of the port if 300 feet passage is to be observed; how Mr. Cousens can reconcile this opinion with the facts may be left to him to explain.

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The plan submitted by the harbour-masters, jointly with Mr. Elmes the surveyor to the port, after allowing a space of 300 feet for transit, provides accommodation at the moorings in the stream for 473 ships, besides upwards of 200 at the wharfs, &c.; together about 700 ships. Now, as all parties admit that 200 feet passage should be preserved, it reduces Mr. Cousens's problem to the mere estimate of the proportion of accommodation which could be given in a given space of 100 feet; this, according to Mr. Cousens's mathematical rule, may be taken at one-third of the 473 ships, or 157 ships, instead of 450.

Some of the harbour-masters object to the mode of determining a width of channel by reference to low-water mark, upon the principle that no ships of burthen navigate the stream at low water; and therefore, that as the tide rises, a much greater width of waterway is secured for the purposes of navigation: this is true as regards small vessels, but it is a fallacy as respects ships of a large draught of water; and it is extraordinary that nautical men should have committed themselves in so extraordinary a degree. What gave rise to the low-water mark demarcation is the circumstance of ships never lying moored along the south shore, between Globe-stairs and Cuckold's-point; the width in the Lower Pool was consequently determined by low-water mark on the south-side; and as the tide only lifts during neaps 14 feet, no ships drawing more than 13 feet 6 could navigate nearer to the south shore than within the distance of low-water mark, in a line to the shore at the top of high water: of what service, therefore, could it be to a ship drawing above 14 feet water, that the width of the surface at the top of the tide be increased; except indeed, that a little more space would exist for light ships and small craft to pass; a space, considering the steep nature of the bank in that part of the river, which cannot at any time exceed from 30 to 40 feet.

Before quitting this branch of the inquiry, it is impossible to pass in silence the manifest inconvenience which apparently exists from a departure from the rules which govern every well-regulated establishment, as displayed in the conduct of the harbour-service, by permitting harbour-masters to volunteer individual opinions, if it so happens that they are in a minority, or do not choose to attend the board meetings; whenever a subject has been submitted to a board of harbour-masters, the decision of the majority present, should be considered the act of the whole, and the minutes signed by the chairman ought to be officially recognized as the act of the board: whereas it appears to have been permitted to Mr. Cousens, as singular in this respect as in many others connected with the service, to interpose his private opinions for the consideration of the committee; a course of proceeding little calculated to impress upon the minds of subordinate officers the respect due to their superiors, advantageous in the management, or to preserve authority.

Other obstructions which are found to impede the navigation of the river are shoals, which have been pointed out in the report of the harbour-masters; but two of these, namely, Whiting's shoal in Limehouse Reach, and the Middle-ground in Blackwall Reach, above the Folly-house, are of so dangerous a description as to require instant attention; whilst the mud upon the bank at Cuckold's Point is gradually increasing, and encroaches much upon the river-channel. In what manner this important and indispensable service to the navigation of the port can best be executed, it is with the committee to determine, as they have before them, officially, a refusal from the Trinity Corporation to remove any shoals the material of which is not fit for the ballasting of ships or vessels, and they further decline to dredge or remove any soil from the bed of the river, however shallow may be the place, unless it shall be fit for that purpose, and at the same time be productive of revenue. The next and only remaining point for consideration, under the first head of examination, is the question relating to moorings, which, from the nature of the observations which have been offered, does not appear to have been correctly understood.

It is worthy of observation, that the harbour-masters, in their Report of the 27th December last, do not offer any objections whatsoever to moorings with bridles. The system of regulating tiers of shipping in the river by means of fixed moorings is not questioned; the advantages indeed are obvious. In blowing weather ships lying at their anchors are constantly shifting, and frequently break adrift, by which damage is done, and obstruction created. The only question appears to be, how the mode of securing ships by moorings can be best effected: a plan was presented by Sir John Hall to the port committee a few years ago, and has been recently particularly adverted to; it should however be observed, that it has been introduced to the committee merely as a suggestion, which if thought worthy of notice may deserve an experiment, although upon a very limited scale. The only substantial objections offered to the plan are those which relate to a supposed risk and inconvenience which would result from ships bringing up for the purpose of dropping into or alongside of tiers, it being apprehended that their anchors would be liable to foul the principal chains. But the same objections apply to mooring-chains of every description, unless the bridles be fixed to blocks of stone, and sunk into the bed of the river at stated distances; and although it will not be disputed that occasional instances of the kind have occurred, few however in number, it is believed, have existed in which anchors have hooked mooring-chains above the Pool. If mooring-chains are therefore to be continued, it is considered that no more inconvenience will arise from the adoption of the improved method, in principle, than from the chains now laid down, except that the fastenings might be secured by chains instead of mooring-anchors. It is not considered that any additional obstruction would be offered by their adoption to the easy access of craft, or that the bridles would offer any impediments to ships passing up and down the river, provided always that the 300 feet channel be kept clear, as ships passing up and down would never pass over that portion of the river which would be set apart for moorings, and such ships could not therefore suffer obstructions from the buoys and bridles.

Mr.

Mr. Robert Smith and Mr. Mark Browne, who have both declared themselves to be practical sailors and wharfingers, professing great sensitiveness and alarm at the supposed risk ships would be subjected to if such moorings and buoys were laid down, in a phraseology, it is presumed, peculiarly technical, declare that "the space between the hull and the rudder, two or three inches in circumference, would bring the ship, if she hooks, stern foremost; and that she must swagger against the next tier." But the committee will be pleased to recollect, that every collier moored by her own anchor in the stream has one cable out creating the obstruction of twenty anchors and cables in a collier tier; and as coasters usually moor fore and aft, the number of their anchors and cables is twice that of the collier tiers. Now, according to the bye-laws, each of those anchors ought to have a buoy upon them, to which the harbour-masters, who were consulted and consenting parties to those regulations, did not at the time offer any objection, whilst now the mere placing of a buoy of demarcation is contemplated with alarm. For the foregoing reasons, it is submitted that the method of mooring alluded to would not increase obstructions from the fastenings; and as to the buoys, that from such as are proposed no apprehension need be entertained. The system of mooring by bridles is not objected to by the practical officers of the harbour-service, but whether the *modus operandi* is a fit one or not, the committee will of course determine. At the same time it is evident, that from the prejudice which appears to have been excited against the particular mode offered for consideration, that it will not be expedient to press upon the committee even the making of an experiment, as they will recollect that some of the adverse witnesses admitted that they had not even seen the plan, whilst some of them, when the plan was shown them, altered their opinion. One of the advantages appertaining to the practice of mooring ships by their anchors, instead of by mooring-chains, has been greatly extolled, it being alleged that the breaking ground when ships move away contributes to deepen the river; such statements, however, are entitled to no credit; there is less depth of water now in the principal collier tiers in the Lower Pool than there was many years ago. But supposing that the committee will not be disposed to make any use of the particular plan of moorings in question, and which, under the circumstances referred to, it is not desired that they should, it will be with them to consider whether a couple of mooring-craft, similar to the one in use by the St. Katharine Dock Company, in a line to mark the boundary at a proper distance from each other, should not be moored in the Lower Pool, which would be a great convenience to the colliers, and save them the trouble of letting go their anchors. Or if this should not be approved of, one mooring secured by a stone, with a distinguishing buoy upon it, may not be most usefully laid down at the outward extremity of each collier tier. Should the buoy be considered objectionable, the outside vessel might be compelled to hang a white board at the end of the jib-boom, or on her taffrel, as the case may be, as a signal that no ship is to make fast outside of her, and that vessels coming up who shall be desirous of mooring in the tier shall drop inside and warp into her berth. Some plan of a similar description will be absolutely necessary to regulate the tiers in Mill-hole, which are permitted to lie in the middle of the river. Such an arrangement would tend much to preserve effectively the regulations as to the number of ships in each tier, the harbour-master taking care that the outside ship or ships do not encroach upon the 300 feet channel; their labours in the Lower Pool would thus be considerably diminished, as they would chiefly have to attend to the berthing the outside ships, and as the number of colliers permitted to moor in each tier would, from the publication of the bye-law, be matter of notoriety, any captain guilty of a wilful breach of them could have no pretext for its violation. The outside ship ought not to permit any craft to lie at, or make fast to the outside of her, for which no pretence can be offered, as she would have a clear berth for a craft on her inner side. The practice which now exists of shifting coal-craft from one ship to another for the purpose of taking on board different qualities of coals in the same barge, is a practice which, for obvious reasons, ought not to be encouraged. The demand for additional room in the Pools for such operations, it is presumed, will not meet with favour from the committee.

The first head of inquiry having thus been disposed of, it is now proposed to advert, generally, to the suggestions of a remedial character which have been offered for the consideration of the committee, and more particularly referred to in the memorandum annexed to the representation of the St. Katharine Dock Company. In pursuing that course it will be necessary to consider to what extent the bye-laws should undergo revision, with a view to embrace such amendments as they are susceptible of, sanctioned by the authority of the 13th section of the 10th Geo. 4, c. 124.

Upon an attentive examination of the evidence which has been offered, and the objections which have been urged to several of the amendments suggested, it cannot have escaped the attention of the committee, that most of those objections proceed upon a misconception, as if it was intended to introduce a more summary mode of punishment, by imposing penalties for offences which shall have arisen from purely accidental causes. The explanations and observations which have been offered to the committee must negative such a misconception, if indeed the knowledge that the legislature would not lend its sanction to the recovery of penalties, except in cases of wilful offences, were not matter of sufficient notoriety. It has also been explained, that a proper discretion is proposed to be vested in the harbour-masters, under the provision of the ninth section of the 10th Geo. 4, c. 124, "who would exercise the same according to the exigencies of the several cases respectively."

Upon attentive consideration, it appears that the following amendments, which are essential, cannot be carried into effect without additional legislative powers. First. The penalties named in the ninth section of the 10th Geo. 4, c. 124, to be recoverable from the offender

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offender, it being now confined to the owner of the ship or vessel. The amendment of that section, from the blunder which has crept into it, is indispensably necessary, as the object of the law is defeated by the incongruity of its provisions. The purpose of the Act is the punishment of the offender, but neither he nor his goods can be touched, unless he happens to be the owner of the ship; and the owner cannot be made liable to payment, unless he happens to be the offender; whereas in most cases the offender is neither owner nor part owner. The penalties are declared to be recoverable by such ways and means as penalties are to be recovered by 39th Geo. 3, c. 69, the 149th section of which enacts, that they shall, upon conviction, be levied and recovered by distress and sale of the offender's goods. A conviction of the owner under the above section is therefore the condition precedent before his goods can be touched; and still how can such conviction be obtained, and the provisions of the law enforced, he being the owner but not the offender? Besides, another question may arise, as to whether, in the case of the party being only a part owner (still not being the offender), the whole of the penalties could be recovered from him; or whether each of the owners, in case of a joint ownership, must not be proceeded against. It is to be observed, that the proceedings under the defective ninth section, 10th Geo. 4, c. 124, must be instituted by the mayor and commonalty and citizens of London, in the like manner as all other penalties are to be sued for and recovered from offenders against the bye-laws. The amendment recommended would, therefore, in no manner subject owners of vessels to any greater inconvenience, or their ships to additional detention, than now belongs to proceedings instituted for the recovery of penalties for a violation of the bye-laws, but, on the contrary, would be of advantage to the ship-owners, by confining the punishment to the real offenders. Suppose a case, by way of illustration: but to put this it is necessary to assume that the law empowers the mayor and commonalty and citizens of London to recover penalties incurred under the section referred to, against an owner of a ship not present when the offence was committed, but that the pilot was the real offender, and who thereupon stands convicted, but refuses to pay; the section in that case directs that the penalty shall be recoverable from the owner. Now, the first intimation he would receive of the circumstance would be the warrant of distress and the levy upon his goods and chattels, a most formidable proceeding to a man taken unawares, residing perhaps some hundred miles from the place where the offence has been committed, a measure not likely to do him good in the opinion of his neighbours; and all this, as it appears, without the means of appeal, his only remedy being by an action at law for reimbursement against the pilot. Besides, the proposed amendment would not create any new powers by which the removal by force of the offender from on board of any ship, which is so much dreaded by the Ship-owners' Society, could be effected immediately upon the commission of the offence, unless accompanied by any breach of the peace, but would leave the law in that respect untouched. It is evident, therefore, that the objections offered by the deputation of the Ship-owners' Society to the amendment in question have proceeded upon a misconception. The harbour-masters are decidedly of opinion that the law should be so amended.

The question also involves another consideration of law, namely, whether so long as the ninth section confines the recovery of penalties for offences described therein from the owner of the ship only, any penalties declared by the bye-laws consequent upon a breach of such of their provisions as have for their object the observance of any of the regulations set forth in the ninth section, can be recovered against the offenders in the manner provided for in the 13th section, seeing that such bye-laws may, in that case, be construed to be at variance with the provisions of the ninth section, and therefore "contrary to and inconsistent with the Act." Should the section be amended, it would be advisable to repeal so much of the provisions as relate to "written notices."

The second amendment, which appears to require additional legislative authority, has for its object to remedy the omission of the word "steam-boats" in the 13th section of the 10th Geo. 4, c. 124. In all the previous sections inflicting penalties for breach of regulations steam-boats are particularly described; now, as the bye-laws are of a penal character, steam-boats not being specially described by name in the 13th section, it is considered that no penalties under bye-laws established by the authority of that section, could be recovered for offences committed on board such vessels.

The next amendment embraces the consideration of a defect in the third section of the said Act. It is presumed that a harbour-master appointed under the authority of the same cannot be construed to have been appointed under and by virtue of the powers of the 39th Geo. 3, c. 169; so much of the said Act as authorized such appointment having been repealed by the 20th section of the 10th Geo. 4, c. 124; so that the rules, regulations, and restrictions which govern the appointment under the former Act (which have been left untouched), do not extend to an appointment under the 10th Geo. 4, c. 124.

The fourth proposition is with a view to establish better authority, and the maintenance of proper discipline, by placing the harbour-masters more under the control of the committee; and at the same time to protect the chief magistrate, with whom the appointment of a harbour-master (upon a vacancy occurring) would rest, from the suspicion of his having been influenced in the dismissal of one harbour-master, that he might obtain the appointment of another. A power ought therefore to be vested in the committee to suspend and dismiss any harbour-master who, in their judgment, shall have been guilty of misconduct; and permission for leave of absence should not be granted to any of the junior harbour-masters without a previous report from the superintending harbour-master, so that he may always be able to provide for the service during such absence.

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The last point suggested, as requiring additional Parliamentary authority, and not one of the least important, relates to the removal of shoals. If the committee shall be of opinion that the Trinity Corporation are not bound to remove them, except under circumstances such as they refer to, and that the monies levied under the head of the Port of London Duty cannot, without further powers, be legally applied to so necessary and effective a mode of improving the navigation of the river, whilst a more fitting application of the monies it would appear can hardly be imagined, an application to Parliament will be necessary. The committee will recollect that a large sum of money was applied to a similar purpose, for the removal of a rock at Blackwall, which was effected under the superintendence of the port committee. And as regards the two shoals before particularly referred to, namely, in Limehouse and Blackwall reach, and also the mud-bank at Cuckold's Point, it is of vital importance to the navigation of the port that they should be forthwith removed, and which may, it is considered, be effected at a moderate expense. The existence of the shoals alluded to contributes also in another way to obstructions, as, from the want of a proper depth of water, ships of large burthen are compelled to wait frequently until within an hour of high water, before it is safe to pass up, by which the passage in the Lower Pool is more crowded at one particular period than it would otherwise be. The committee are also entreated to consider, whether the causeways at the stairs near to parts of the navigable channel, such as at Globe-stairs, Cuckold's Point, &c., ought not to be removed, they being very dangerous to shipping.

With the exception of the first of these amendments, namely, that relative to the extended application of penalties, no objections have been offered: the committee will therefore be pleased to consider whether any or all of them are worthy of adoption, and if it shall appear that they cannot be carried into effect without additional legislative authority, whether they are of sufficient importance to justify an application to Parliament.

Having thus far adverted to such of the amendments propounded, which, it is considered, cannot be carried into effect without additional legislative powers, it is now proposed to observe upon those which can be carried into effect by an alteration of the bye-laws, under the authority of the 13th section of the 10th Geo. 4, c. 124.

Bye-law No 23, which regulates the number of colliers permitted to be in the tiers therein named, should be revised, and the number in any one tier not to exceed 15: also, so much of the concluding part thereof, and of No. 31, as confines the recovery of penalties to a twelve hours' notice, to be expunged, so as to correspond with the 9th section of 10 Geo. 4, c. 124; leaving the time of removal in the discretion of the harbour-masters, to be governed by the words in the section, "within a reasonable time."

So much of the bye-laws to be further amended as to embrace the regulations which have been recommended in the second, third, and fourth paragraphs of the Memorandum, (52) and which have been approved of by the harbour-masters [see their report of the 23d November 1832]. Mr. Drinkald observes, upon paragraph No. 3, that no amendment is necessary; but the committee, upon comparing the proposed amendment with the 9th section of the Act referred to, will see that he is mistaken. That a new bye-law be framed to provide for additional powers to the harbour-masters, according to the suggestions contained in paragraphs No. 5 and 6, strongly recommended by the harbour-masters. And whilst upon this subject it is important to notice the unaccountable misconception which has prevailed with some of the witnesses, as regards the authority sought to be given to the harbour-masters, to call in aid the river police, when necessary, to enforce the observance of the bye-laws and regulations against refractory parties. Resistance, and dreadful threats have been offered by such persons, involving the safety of the lives of the harbour-masters, and of the persons who have been authorized by them to execute orders of removal; some captains of colliers, indeed, have set the harbour-masters at defiance. It is in cases of a manifest breach and resistance of the laws, that assistance from the police is indispensable: without which parties will continue to offend with impunity. And it must be observed that this species of reprehensible conduct is chiefly confined to persons in charge of ships in the coal-trade, by whose obstinacy, and non-observance of the regulations, nearly the whole of the confusion and obstruction existing in the navigation of the river are produced, as the harbour-masters can well verify. A special power might be introduced into the Bill now pending for amending and continuing the powers of the justices of the several police offices, so as to provide for the assistance in question.

Paragraph No. 7 has already been observed upon, under the head of Moorings, and this, together with No. 8, embracing the question of buoying off the channel of 300 feet at particular places, the subject is left entirely with the committee to dispose of: suffice it to say, that the recommendation contained in paragraph No. 8 has been much misconceived, and hence a confusion has arisen in respect to the effect of bridles and buoys described in the plan of fixed moorings, as compared with the distinguishing buoys in question, as the latter would not exceed half a dozen between Limehouse and London Bridge. Under these circumstances, it is hoped that the committee will see the expediency of making an experiment, by causing three or four distinguishing boundary buoys to be placed at the most important parts of the river.

Bye-law No. 8 should be revised, and provide for a month or a fortnight's rotary duty; by which the service would be more effectively performed, and with more satisfaction to the harbour-masters themselves. As regards paragraph No. 10, which is confined to the regulating of the speed of steam-boats in certain parts of the river Thames, it is submitted that should the committee apply to Parliament, it would be desirable to take this subject, which affects a local improvement, into their own hands; as it falls immediately within their province as supervisors of the navigation of the river Thames.

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Paragraph No. 11 relates to the shoals: this subject has already been adverted to in its proper place, and requires no further comment. A report from the harbour-masters, dated the 28th January last (204), has been submitted to the committee, pointing out other amendments and additional alterations in the bye-laws. But as it appears that many of these involve an increase in the expense of the establishment, which already exceeds upon an average about 2,000 *l.* per annum, the annual disburse originally contemplated by the Committee of the House of Commons on Foreign Trade: whilst it also suggests the revocation of some or parts of the bye-laws, which impose penalties upon the harbour-masters for neglect of duty. It is presumed, the committee will not be disposed to concur in such parts of the recommendation as are connected with those points, particularly after it has been so conclusively proved, that a considerable part of the obstructions and impediments to the navigation in the river has arisen from a want of a more efficient performance of the service. There is one point adverted to in the said report which deserves consideration, although it would be attended with some increased expense. If the execution of the harbour-service, from a mistaken economy, shall appear to the committee to be crippled for want of additional boat assistance, the committee will no doubt assent to an improved arrangement.

No immediate notice has been taken of Mr. Willius's plan, as it embraces considerations of too serious a character to be feasible under existing circumstances, and involving great expense. His principle, however, is a correct one, as regards the 300 feet in width, and the channel for navigating, which ought to be confined to that part of the river where the current is the strongest, and of course the deepest water; but whether the committee will be disposed to consider so much of the plan only as relates to the Lower Pool, is submitted to their deliberate attention.

The committee cannot have failed to perceive, throughout the whole of this inquiry, the degree of prejudice which so undeservedly exists, with most of the witnesses who have been examined, against the St. Katharine Docks. It is at all times sufficient to provoke a hostile feeling whenever an attempt is made to reform abuses.

If the statements which have been offered by the adverse parties were entitled to implicit credence, the committee would be required to believe, as before stated, that no complaints were ever made except by the St. Katharine Dock Company, and that no obstructions would exist in the Pools but for the large ships going to the St. Katharine Docks; the attempt thus made to fix, in a most unjustifiable manner, an odium upon the company, is too apparent not to be noticed; whilst it should be remembered, that this is endeavoured to be fastened upon them merely for calling in aid the assistance of the committee to enforce the existing laws and regulations, and with the view of improving the harbour-service so essential to the interests of the port, whilst it should always be steadfastly borne in mind, that the complaints have in almost every instance been confined to the state of the Lower Pool, and that the correction of that portion, the most serious part of the abuse, is within the immediate power of the committee, and may be at once effected by diminishing the accommodation there about 16 ships.

The first allegation has been satisfactorily refuted, and as to the latter, it may be stated, that not more than 30 ships, from 400 to 900 tons, have annually passed upwards to the St. Katharine Docks; that the number has not been greater is entirely attributable to the state of the Lower Pool. How can it therefore with truth be asserted, that the obstructions in the Pools, which are acknowledged to be of almost daily occurrence, are to be solely attributed to the large ships which go up to the St. Katharine Docks? As a principle of regulation it is necessary to fix a *minimum*, without which no system of management could be maintained; and upon these grounds nautical men, and persons experienced in the navigation of the river in 1829, agreed that 300 feet were necessary to provide for a channel for navigation and casualties, and to meet cases of exigency; not indeed, as erroneously endeavoured to be shown, for large ships only, but for the general purposes of convenient and safe navigation. No doubt, if the gates of the St. Katharine Docks were closed, the harbour-masters would then be relieved from many of the complaints referred to; but the committee will look at the subject as a whole, giving to it due and deliberate consideration as relates to the magnitude of the subject, and the great interests involved; the St. Katharine Dock Company, as it has been previously stated, asking for no exclusive favour or advantages, but desiring only that all should participate alike in the benefits of the trade and navigation of the port.

The late prevalence of easterly winds will, it is expected, produce a large arrival upon a change of wind, and as the importance of keeping the 300 feet clear according to law, will under such circumstances be rendered of considerable consequence, it is earnestly pressed upon the Committee to issue at once a peremptory instruction to the harbour-masters, to see that the bye-laws in that respect, and particularly in the Lower Pool, are scrupulously enforced and duly obeyed, until the new rules and regulations shall have been determined upon.

Having now concluded the observations which have occurred upon this very important subject, and which have appeared to bear more immediately upon it, this opportunity is readily embraced to thank the committee for the attention they have been pleased to bestow upon a question of such vital consequence. The remedial regulations suggested, and the facts and circumstances are before them. If the committee should desire further information, it will be readily afforded; but the Dock Company have purposely abstained from troubling them with multiplied proofs.

The public look with confidence to the committee for immediate redress; and that they will give to the commercial and shipping interests of the port of London the full benefit of remedial regulations, which shall have for their object improvement in management,

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introduce a better discipline into the harbour-service, correction of abuses, and put an end to those unnecessary impediments which now operate as a hindrance to the trade and prosperity of the metropolis.

London, 30th March 1833.

1059. *Chairman.* (To Sir John Hall.) The committee feel that this very elaborate and able statement upon the very important subject before them is highly creditable to you, particularly from its practical nature; and that they are under a great obligation to you for the great pains you have taken.

1060. Mr. *Bridge.* There are certain points on which it appears to me desirable to request further explanation. Sir John Hall seems to think that the interest of the individuals who have been before this committee has had too much influence upon their statements. He has stated, that were it not for the crowded state of the Pool many ships would come to the St. Katharine's Dock which do not. That does not appear to me so clear as he states it. He instances the Lord Eldon, which was sent into the West India Dock, although, probably, the shippers of goods might have wished rather to deposit their goods higher up; I think that it is not to be assumed, because the owners of goods choose to remove their goods to the St. Katharine's Dock, that the owner of the ship would have wished his vessel to go there. I would beg to ask, when he says there are a certain number of packages lightering up to St. Katharine's Dock, whether the owners are in the habit of paying for their lighterage?—Sir *John Hall.* No; the St. Katharine's Dock pay the lighterage.

1061. Mr. *Bridge.* If an offer were made to me, as the importer of goods, to lighter my goods up to the St. Katharine's Dock, I should certainly direct them to be brought up, as it would be a great convenience to have them so near the seat of business; but it appears to me that the ships not having come up is not necessarily to be considered as arising from the crowded state of the Pool?—Sir *John Hall.* I merely stated the case of the Earl of Eldon as bearing upon an observation which was pressed upon the committee by the deputation of the Ship-owners' Society. If the consignees of the cargo had the power of controlling the place of delivery, there is no doubt into which dock that ship would have come. I will put in a copy of the manifest of the cargo of that ship, and it will appear that she would undoubtedly have come into the St. Katharine's Dock, but for the fear of the owners, of inconvenience from the state of the Pool. I could produce plenty of evidence of ships having discharged in the docks lower down, in consequence of the crowded state of the Pool.

The manifest was delivered in, and read, as follows:

1062. Particulars of the Cargo of the Earl of Eldon, Thacker, from Bombay, discharged in West India Docks, and reported 6th April 1833.

GOODS.		Total Cargo.	For St. Katharine's Docks.	Not for St. Katharine's Docks.
Hemp	Bales	1,000	1,000	—
Cotton	Do.	1,542	1,406	136
Do.	Half do.	18	18	—
M. O. P. Shells	Chests	25	25	—
Gum	Do.	106	106	—
Coffee	Bags	107	107	—
Pepper	Do.	1,004	1,004	—
Rice	Do.	288	288	—
Tin	Pigs	304	303	1
Horns	Bundles	10	10	—
Hippopotamus Teeth	Do.	47	—	47
Seeds and Wheat	Bags	about 25 tons	—	25 tons
Sundries	Packages	4	1	1
	Packages	4,480	4,268	212

1063. Mr. *Bridge.* You said that the harbour-masters, during the time they had for the trial of the experiment, previous to the institution of the bye-laws 18 months ago, approved of the 300 feet being kept. I do not find anywhere, unless on some special point, the opinion of any one harbour-master that it has been proved by any one that such was the case?—Sir *John Hall.* I have not access to the minutes of the port committee; I can only reason from the records; and when I find such a bye-law passed, with the unanimous concurrence of the port committee, under the opinion of its officers, I am to suppose that they felt it to be right.

1064. Mr. *Bridge.* It seems very difficult to keep that space open?—Sir *John Hall.* I am prepared to show that, consistently with all the purposes of navigation, it can be kept without driving any vessel out of the Pool; but if the number of colliers is to be increased, they will drive the other vessels from the Pool.

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1065. Mr. *Bridge.* It appears that the colliers cannot be accommodated without more room?—Sir *John Hall.* There is a difference of opinion between the practical officers and the coal-trade, as to the number of vessels required to be in the Pool. The practical officers say that 170 is sufficient; the coal-trade at first required 300; they have now reduced their demand to 220, and I should say, we could give them accommodation for 195 or 200 ships.

1066. Mr. *Taylor.* Admitting, for the sake of argument (and I am sure Sir John Hall would not come here unless he felt there was cause for complaint), but admitting that, since the opening of the St. Katharine's Dock, those evils have been felt, and that they require redress, will not he admit that those causes of complaint have been increased by the fact of the opening of that dock, and the transit of larger ships to that dock; that part of the evils arise from that dock being placed higher up the river than large ships were ever expected to come; and that, while that dock remains, all these difficulties will be occurring in the navigation of the river?—Sir *John Hall.* The question involves so much of hypothetical assumption, that I hardly know how to answer it; but if I am to confine myself to facts, I will take the evidence of Captain Fisher: he states that there was always 300 feet preserved. Now, what is the obstruction created by the St. Katharine's Dock? 1,100 ships a year: is that sufficient to create a daily obstruction.

1067. Mr. *Taylor.* Does not the very circumstance of the towing by steam create a considerable obstruction in the port of London?—Sir *John Hall.* All the obstruction arises from a clear channel not being kept; if there were a clear channel of 200 feet kept, that would answer the purpose. It is quite manifest that a ship towed requires only 40 feet passage, whereas, without steam navigation, she would take 250 feet.

1068. *Chairman.* At the time when the tide is going down, just after high water, when the vessels are dropping athwart the tide, steam-boats are coming in a direction contrary to the natural course of the navigation, and that, of course, creates an impediment to the navigation?—Sir *John Hall.* Yes; it is not very frequently the case: but that arises from vessels waiting in consequence of having heard that there was an obstruction in the Pool; then when they come they create a stoppage. I do not suppose that the ships that come to the St. Katharine's Dock are 10 per cent. of the large ships that come up after high water.

1069. Captain *Fisher.* The great evil is in the ships going down. They come out at half-flood, and there is very often a fleet of colliers coming up, and they come in contact. If there were not a ship in the tier, there would still be an obstruction from their collision.

1070. Sir *John Hall.* If there were a clear passage, there would be no difficulty. If there were 300 feet there would be plenty of room for every vessel to drive or to drop up. The harbour-masters will state that it would be perfectly unsafe, that no man in his senses would think of taking a ship of 500 or 600 tons down loaded under those circumstances.

1071. *Chairman.* Where is he to stay with her?—Sir *John Hall.* They may lie by.

1072. Captain *Fisher.* There was an error in the minutes of the former day about the 300 feet, which I have subsequently corrected.

1073. Sir *Chapman Marshall.* You have put in a document, a manifest of the ship Lord Eldon, which has struck me in the outset as being of very considerable importance; inasmuch as it appears that of the 4,480 packages the total of the cargo, 4,268 of those packages are destined for your own docks?—Sir *John Hall.* They are lightered up now.

1074. Sir *Chapman Marshall.* About how many lighters would it require to bring up so large a proportion; to bring up those packages?—Sir *John Hall.* I should think about 15 or 16 lighters.

1075. Sir *Chapman Marshall.* Would not those lighters in coming up the Pool be a greater obstruction, supposing the large ships go into the West India Dock, than the vessel itself coming into the St. Katharine's Docks to unload there?—Sir *John Hall.* The lighters do not come up all together; there is a lighter here and a lighter there, and, being smaller bodies, they are more easily removed; but, taken altogether, I should say that they create a greater obstruction than one vessel coming up.

1076. Mr. *Howell.* Have the consignees the power of directing the dock to which the vessel should come?—Sir *John Hall.* It is usual to concede that point in many cases to the owners, but not in all cases.

1077. Mr. *Fisher.* You are aware, no doubt, of numerous projections or piles carried out from various wharfs; would a greater number of them tend to the obstruction in the River Thames, or otherwise?—Sir *John Hall.* I should conceive so; for they are in fact obstructions in themselves, and the more they are increased the greater the obstruction.

1078. *Chairman.* Supposing they were of that nature that they would not displace a single ship or craft?—Sir *John Hall.* It is difficult to conceive of such a case; if we were to carry our wharf out it would create an obstruction though the tide flowed through it. I have always conceived that they were so taken by this very committee; the committee have considered it necessary that the parties should have their permission to create them, because they were obstructions.

1079. *Chairman.* But supposing the case of a narrow platform, not extending out so far as the long-shore passage, should you consider that an obstruction?—Sir *John Hall.* No, I should not in that case.

1080. *Chairman.* The committee have considered it a gratuitous statement on your part that vessels going into the West India Dock would have come up to the St. Katharine's Dock if the passage had not been obstructed: have you been informed by the owners and consignees of ships that this has been the case?—Sir *John Hall.* Every day in my life we have had letters from the consignees to owners of ships, requesting that the vessels might come up, and the answer has been, clear the river for us and they shall come up.

1081. Captain

1081. Captain *Fisher*. We know that a pilot gets no more for bringing up a vessel to the St. Katharine's Dock than to the West India Dock.—Sir *John Hall*. It is true that the sea pilots get no more for bringing up a vessel to the St. Katharine's Dock than to the West India Dock; but Captain Fisher knows that nearly all the pilots that bring up the vessels to the Docks are river pilots, and that their payment is regulated by the distance.

1082. *Chairman*. When the St. Katharine's Dock Company were in Parliament to procure their Bill, did not the prospectus, on which the projectors of the scheme proceeded, present to the public as the chief consideration, the convenience and saving of expense to merchants by the delivery of cargoes as near as possible to the centre of trade?—Sir *John Hall*. Certainly: the place of deposit being within reach; and a great body of evidence was in favour of the bringing up the large vessels, and that they should be brought up by steam.

1083. *Chairman*. That evidence induced Parliament to pass your Bill?—Sir *John Hall*. Certainly.

1084. *Chairman*. You adverted to an imputation which had been thrown upon the St. Katharine's Dock Company in the evidence here, namely, that any representations of the state of the Pool by the St. Katharine's Dock Company should be viewed with suspicion: if you knew the fact, that the directors of the West India Dock had strongly contended here for a narrow and limited navigation, would you think it fair to retort upon them, that that statement should be viewed with suspicion?—Sir *John Hall*. I have felt it my duty to remark upon Mr. Drinkald's connexion with the West India Dock, and his having directed his agent at Gravesend that ships were not to come up in consequence of the state of the Pool.

1085. *Chairman*. You are of opinion that the tonnage duty cannot be applied, according to the present state of the law, to the removal of shoals, if you are rightly understood.—Sir *John Hall*. I have only thrown it out for consideration; but my opinion is that it would be warranted; and I have referred to the removal of the rock at Blackwall.

1086. *Chairman*. We are advised by our officers, that the improvement of the Port of London would be a very appropriate use of the tonnage duty.

1087. Mr. *Bridge*. Was it ever anticipated that ships larger than 500 tons would come up so high as the St. Katharine's Dock?—Sir *John Hall*. I have given an extract from the first prospectus of the company, in which it was held out that the accommodation was intended for ships of 700 tons and upwards, and ships in the East India trade.

1088. Mr. *Taylor*. You have spoken of the space within the *radius* appertaining to your dock, as frequently affording accommodations for steam-boats, to the number of five or six.—Sir *John Hall*. I have seen as many as 12 there; the average number is 8.

1089. Mr. *Taylor*. Is not their lying there a very great obstruction to the river?—Sir *John Hall*. No; they must lie somewhere. We brought them down from the Tower, and give up that space for their accommodation.

1090. Mr *Taylor*. Does not the same observation apply to them as to other light vessels, that they should not lie there?—Sir *John Hall*. That observation can hardly apply to boats bringing up goods from Stockton and other places, and which do not remain eighteen hours on the average at their moorings.

1091. Mr. *Dunnett*. Are you of opinion that the channel has been kept more clear since the last bye-law than before?—Sir *John Hall*. Certainly, that is the case.

1092. *Chairman*. The committee desire to repeat their acknowledgments of the very great pains you have taken, and the valuable information you have laid before the Committee.

1093. Sir *John Hall*. I can only beg to assure the committee, that if I can at any time be of any service to them by any statement of my own or any I can procure for them, I shall be happy to afford them every assistance. All my wish is to lay the facts before the committee; and we are quite satisfied that, the committee being put into possession of the facts, justice will be done to all parties.

[Sir *John Hall* withdrew.

1094. Resolved and Ordered, That the harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way of not less than 300 feet be scrupulously enforced; and, particularly in the Lower Pool, that they do not permit at any time a greater number of ships or vessels to be moored at the several tiers than is allowed by the bye-laws.

Friday, 17 *July* 1835.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

WALTER ANDERSON PEACOCK, ESQ., IN THE CHAIR.

THE committee proceeded in the consideration of the order of reference from the Court of Common Council of the 2d day of July instant, on the memorial of the St. Katharine Dock Company.

1095. Sir *John Hall*, and other parties interested in the proceedings of the committee, with regard to the bye-laws of the port of London, were called in.

1096. The following documents were put in and read:

1097. Memorial of the St. Katharine's Dock Company.

No. 1.
Proceedings of the Common Council.

To the Right Honourable the Lord Mayor, Aldermen, and Commons of the City of London, in Common Council assembled: The memorial of the St. Katharine's Dock Company showeth, that since the year 1798 several Acts of Parliament have passed for rendering more commodious, better regulating, and improving the port of London, and a committee has been annually appointed by the Court of Common Council, under the authority of those Acts, for carrying the same into execution. That the commerce, trade, and navigation of the United Kingdom, and of the port of London in particular, are deeply interested in the preservation of an unobstructed channel in the River Thames, for the safe and convenient transit of shipping. That the importance of affording increased security and accommodation to merchandise and shipping, and of giving additional effect to the warehousing system, induced the legislature to grant encouragement to the construction of wet docks and warehouses inclosed within walls between Blackwall and the Tower; and the proprietors and occupiers of such docks, and of wharfs and bonding warehouses, situated in the city of London and on the banks of the river (in the construction of which many millions have been expended), are all of them materially interested in the removal of impediments to the navigation of the River Thames, and in preserving to the metropolis its commercial intercourse with other parts of the world, as are also the corporation of London, in their character of landlords and receivers of tolls. That in 1832 your memorialists brought under the especial consideration of the worshipful the port committee the obstructions that existed to the navigation of the river, and also the inefficient manner in which the harbour-service was performed. That representations of a like import were made at the time by the London Dock Company, and by wharfingers, ship-owners, and others connected with the commerce and navigation of the port, which representations induced the committee to institute an inquiry into the subject matter of complaint, the result of which conclusively established the existence of the grievance, and proved further that it was a growing evil, requiring not only an effective but a prompt remedy. That the port committee proceeded to revise the bye-laws accordingly; and although your memorialists and others interested in this most important question have, during upwards of two years, incessantly urged the necessity of giving effect to an amendment of the bye-laws and the adoption of improved regulations for the management of the harbour-service, which were prepared by the committee in 1833, it was not until the 20th of March last that your memorialists were apprised that the port committee (of subsequent appointment) had at length determined upon certain alterations, professedly with a view to removing the grounds of complaint and of giving effect to the purposes of the Acts before referred to; but to the surprise and disappointment of your memorialists, instead of those alterations proving to be of a remedial character, some of them are obviously calculated to aggravate the difficulties of navigation, it being actually proposed to contract the navigable channel 50 feet, in direct opposition to the deliberate decision of the committee in 1833, who, after a most attentive and laborious investigation, and conformably with a greatly preponderating body of evidence, determined to adhere to the regulation as now by law established, which provides for a navigable channel of not less than 300 feet; whilst it further appears that it has been recommended to assign certain parts of the river for the mooring of ships in tiers, in such manner and in such numbers as will, if carried into effect, be highly injurious to the general interests of the commerce and navigation of the port. That within a few hours after your memorialists were apprised of so unexpected and extraordinary a determination, a certificate (a copy of which is annexed) was signed by a very large portion of the river pilots, by the dock-masters of the two principal upper docks, and also by several of the proprietors and occupiers of wharfs between Limehouse and London Bridge, declaratory of the necessity of preserving 300 feet width of channel, as provided by law, and objecting to those parts of the river where the current sets the strongest being appropriated for the mooring of ships in tiers, and recommending that such parts ought to be preferably devoted to the purposes of transit, and thus contribute to the security of shipping and increased facility of transport. That your memorialists immediately, and some time previously to the report of the port committee being presented, transmitted to that committee the important document in question, with a view of bringing under their notice an official record of the opinions of practical navigators, experienced public officers, and others concerned in the navigation of the port, and requesting that such testimony might receive consideration; but the port committee, contrary to the just expectations of your memorialists, declined to pay attention thereto, stating that they had already communicated with the elder brethren of the Trinity Corporation, upon the proposal to contract the space of 300 feet now set apart by law for the transit of shipping, and who, as the committee allege, had intimated their approval of such abridgment, and of other alterations in the bye-laws now recommended by the port committee for the sanction of the court. Your memorialists, however, beg leave respectfully to express their doubts of the accuracy of the impressions the port committee have formed as to the opinion of the elder brethren upon the matters referred to; and they invite the attention of the court to the fact that, whatever may have been the communications between the port committee and the elder brethren, those communications took place previously to the presentation of the important document before referred to, which, it may with confidence be assumed, would have been considered worthy of attention by the elder brethren, provided the port committee had thought it right to confer with them thereupon; whilst it is further to be observed, that no approval by the elder brethren of the Trinity-house in the premises can be legally pronounced until the Court of Common Council shall have first sanctioned the proposed bye-laws; so that any reference to their opinion was premature: and it is also worthy of observation, that your memorialists were not at the time favoured with the slightest intimation of the extraordinary means by which the port committee have proposed to remedy the grievances

grievances complained of, but were indebted for a knowledge of the same to a mere accidental circumstance.

Your memorialists are prepared to prove before the committee, if permitted to do so, that the narrowing of the channel for the purposes of navigation, as proposed, will be productive of most serious obstruction to the transit of shipping, detrimental to the interests of the commerce, and particularly injurious to the merchants, traders, and ship-owners of and frequenting the port of London. That it will not be possible, without impeding the maritime approach to the port, to moor the number of ships in the tiers named in the proposed bye-laws [see the Example at the end of the Memorial], nor in the manner suggested by the committee, within the computed space of 20 feet for each ship, including casualties, a space which your memorialists believe to have been so allotted, although they cannot venture to speak with certainty, inasmuch as the port committee refused to give your memorialists information upon a point in respect of which every person connected with the shipping of the port is so materially interested; whereas it can be proved that upon an average, and therefore for practical purposes, a space in width of 25 feet ought to be allowed for each ship, and would, if the number of vessels proposed to be stationed in some of the tiers be adopted, produce in certain instances an encroachment upon the navigable channel of upwards of 100 feet beyond the space computed by the port committee; and it can further be satisfactorily shown that certain parts of the river assigned for the mooring of tiers, and for the number of ships proposed to be moored thereat, will seriously endanger navigation and impede the transit. That there are, moreover, other defects in the proposed bye-laws and regulations, but as they are of a minor character, and partake more of detail than of principle, your memorialists will not now enlarge upon them, but will be prepared to afford information respecting them before the port committee, if allowed to do so. Your memorialists cannot conclude this representation without expressing a deep regret that the port committee have been wholly silent upon the subject of the shoals and mud-banks which contribute in so great a degree to the obstruction of the navigation between Woolwich and the Tower. Your memorialists are aware that doubts are entertained as to whether any competent authorities exist who can be made responsible for the removal of those growing impediments, but conflicting opinions upon so important a question ought not to be permitted to retard the application of a remedy, and your memorialists, therefore, confidently rely upon the port committee submitting the subject without delay to the early and serious consideration of His Majesty's Government. Under all the circumstances stated, and considering that the port of London committee have declined to hear your memorialists upon the particular and important points referred to, and have also refused to afford the information requested, or to pay attention to the recorded opinion of the pilots, dock-masters, ship-owners, wharfingers, and others, as set forth in the certificate submitted to their consideration, "unless the matter be referred back to them," your memorialists pray that the report of the committee may be referred back to them accordingly, for the purpose of further investigation into the important matters in question, so as to afford your memorialists an opportunity of tendering evidence thereupon, and of being heard generally upon the same.

By order of the Board of Directors of the St. Katharine Dock Company.

London, 28 May 1835. *John Hall*, Secretary.

1098. Certificate of River Pilots in behalf of 300 feet passage.

We, the undersigned licensed river pilots, do hereby certify, that it is our decided opinion, that to afford safe and requisite accommodation to shipping navigating the River Thames between Limehouse Reach and the Tower, a channel of not less than 300 feet should be reserved for that purpose between the tiers of shipping, or from the outermost ship in any tier (where double tiers are not stationed), to low-water mark; such channel to be preferably kept where the set of the current is the strongest; and we are further of opinion that, under proper regulations duly enforced, such channel can be kept, with every regard to the general accommodation of shipping frequenting the port of London, provided additional power be given to the harbour-service to remove forthwith all obstructions.

20 March 1835.

(signed)

J. Chippendale.	*Charles Foshach.*	*Thos. Garbutt.*
John Ferguson.	*Thomas Ross.*	*John Pashley.*
J. H. Dix.	*Wm. Palmer.*	*Matt. Reid.*
Wm. Gilbert.	*John Norfor.*	*W. Batchelor.*
Joseph Voy.	*Wm. Chapman.*	*R. D. Ross.*
John Gilbert.	*Wm. Fothergill.*	*Wm. Harrison.*
E. Pashley.	*Alex. Fothergill.*	*Charles Voy.*
W. J. Osgood.	*Benjn. King.*	*Wm. Kitchener.*
George Chandler.	*John Candy.*	*John Henderson.*
Wm. Hedley.	*Wm. Collins.*	*John Bennett.*
Abraham Pickering.	*John Hughes.*	*Richard Ross*, sen.
Wm. Brownfield, jun.	*Edw. H. Clarence.*	*George Irvine.*
Thomas Brownfield.	*Robt. Nicholson.*	*J. R. Barrowby.*
John Walker.	*Alex. Smith.*	*James Kindred.*
George Reed.	*John Nevill.*	*Robt. Rosbery.*
James C. Walker.	*John Phillips.*	*Mich. Boxer.*
George Johnson.	*Thos. A. Duff.*	*Thos. Voy.*
Edward Motley	*Isaac Sturbuck.*	*Thos. Forss.*
John Reed.	*Robt. Hughes.*	*James Deane.*

1099. Certificate

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1099. Certificate of Dock-masters and Wharfingers.

We, the undersigned, having perused the above certificate, fully concur in the opinion therein given.

(signed) *Francis Walton*, Dock-master.
W. K. Maughan, ditto, London Docks.
Charles S. Compton, Principal Dock-master.
James Adams, Dep. Dock-master, St. Katharine Docks.
Joseph Adams, Leith and Glasgow Wharf.
Alex. Thompson, Upper Irongate Wharf.
David Wright, Cox's Quay.
F. W. Wright and Co., Irongate Wharf.
Jos. Watson, Watson's Wharf.
C. R. Collman, Downe's Wharf.
W. J. Smith, Agent to the Dublin Steam-Packet Company, 16, John-street, Crutched Friars.
Thomas J. Harrison, Harrison's Wharf.
Charles White, Carron Wharf.
Alex. Macintosh, per *E. Hore*, Hore's Wharf.
E. Wright, per *John Duffas & Co.*, Aberdeen Steam-Packet Company.
Thos. Farncomb, Griffin's Wharf, Southwark.
Rich. Wilson & Co., Carpenter Smith's Wharf.
Griffin and Hillhouse, Beale's Wharf.
Joseph Barber, Chamberlain's Wharf.
James Jenkins, Aberdeen and London Shipping Company.
C. Moreton, (Superintendent), *J. Clippindale*, (Wharfinger), St. Katharine's Steam-Packet Wharf.

(Example referred to in preceding Statement.)

1100. Statement of the Number of Ships intended to be moored in tiers on the north shore in the Lower Pool, according to the proposed bye-laws, showing the space each tier would occupy; 25 feet being the computed space in width required practically for each ship, which includes an allowance for fenders, shifting of ships and moorings, casualties, &c., and providing for one craft alongside the outermost ship; showing also the width of the river at low-water mark, and the width of the channel that would remain for the purposes of navigation.

TIERS.	Number of ships proposed.	Width of the average occupation of each tier, about	Average width of inshore channel north side, about	Total width from low-water mark, north shore, to outermost ship, about	Width of river between low-water mark, about	Width of remaining water-way or navigable channel, about	Encroachment on the 300 ft. width of channel established by law, about
		feet.	feet.	feet.	feet.	feet.	feet.
Cole-stairs - -	22	550	100	650	860	210	90
Bell-wharf - -	23	575	100	675	825	150	150
Stone-stairs - -	20	500	100	600	750	150	150
Ratcliff-cross, upper -	16	400	100	500	700	200	100
Ratcliff-cross, lower -	15	375	100	475	695	220	80
Total number of ships	96						

The above statement shows the impossibility of mooring the number of ships as proposed, without so narrowing the channel as to obstruct the transit of shipping; and to a similar error, and a want of sufficient allowance for space occupied upon an average for the inner channel, the constant encroachment upon the passage of 300 feet may be attributed, and hence the confusion in the Pool. Moorings ought to be provided for colliers on the opposite south shore, by which additional accommodation would be afforded, and the stream on the north side appropriated as it should be for navigation; a wider passage would thus be secured and kept with comparative ease. The accompanying plan shows what would be the effect practically of the regulations recommended by the port committee, and explains also the arrangements suggested by the St. Katharine Dock Company.

1101. Protest of the Wharfingers and Occupiers on the Banks of the River.

London, April 1835.

We, the undersigned wharfingers and occupiers of property along the banks of the river, between London Bridge and Limehouse, understanding that a law is about to be established for preserving an open navigation of 300 feet through the Pools, we are bound to protest against the same, knowing it to be unnecessary for the general interests of the trade of the port of London, as it would be the means of reducing the present limited accommodation in the tiers, which accommodation is absolutely necessary to supply the metropolis with

the

the daily supplies. We also conceive that the proposed law is intended to drive the vessels frequenting the wharfs and tiers into docks.

E. Fennings, Fennings' Wharf.
J. H. and G. Scovell, Topping's Wharf.
John Humphery, Hay's Wharf, Southwark.
Jeffery, Smith and Sons, Cotton's Wharf.
William Betts, Pickle-herring Upper Wharf.
Mark Brown, Mark Brown's Wharf.
Joseph Fletcher, Wheat-sheaf Wharf.
Richard Willson & Co., Carpenter Smith's Wharf.
Em. Silva & Sons, Gun-and-Shot Wharf.
William Liddard, Liddard's Wharf.
J. H. & G. Scovell, Symon's Wharf, Southwark.
Rob. Pearson, Stanton's Wharf.
S. W. Wheeler, Stanton's Lower Wharf.
Davis & Clarke, Davis's Wharf, Horsleydown.
Will. Parker, Hartley's Wharf.
Pomray & Brander, Butler's Wharf.
Jonas Heydelbach, Platform Wharf.
John Sedger, jun., Grand Surrey Canal.
John Thompson, Horseferry, Rotherhithe.
John S. Sedger, sen., Rotherhithe-street.
S. Reynolds & Co., Dundee and St. Andrew's Wharfs.
John Metcalfe, Brown's Quay, Wapping.
William Morgan, Hore's Wharf, Hermitage, and Hore's Dundee and Perth Steam Wharf.
T. Hosie, Miller's Wharf, for the Leith and Aberdeen Shipping Companies.
R. Matthew, Aberdeen Steam Wharf.
Joseph Barber, Brewer's Chester and Galley Quay.
W. J. Hall & Co., Custom-house and Wool Quay.
William John Smith, Dublin Steam Wharf.
Watson & Metcalfe, Watson's Wharf.
Thos. Joseph Harrison, Harrison's Wharf.
Francis Nash, Pickle-herring Lower Wharf.
Griffin & Hillhouse, Beal's Wharf.

1102. Memorial of Parties interested in the Coal-trade.

To the Worshipful the Thames Navigation and Port of London Committee.

We, the undersigned parties interested in the coal-trade of the port of London, having learned with surprise and regret that application has been made to the court of common council, complaining of the regulations recommended by your worshipful committee as bye-laws, and also approved by the Trinity-house, and that the same have been referred back for re-consideration, beg to be heard before your worshipful committee in case any alteration should be contemplated in consequence of such application; your memorialists fearing lest the same may prejudice the general accommodation provided for the mooring of colliers in the port of London, after laborious and careful examination of the evidence before adduced, and a due consideration of the general interests of the public.

T. W. & J. Horne, jun.
Burton & Bentley.
Pocock & Sons.
Cory & Scott.
C. Johnson & Sons.
Charleton & Watson.
C. Green.
Edward Wood.
D. & P. Cloves & Co.
W. Miller & Potter.
W. H. Marshall.
R. N. Brown.
Capel & Slaughter.
Clarke & Burges.
Dickins & Co.
Duke & Hill.
Thomas Crondale.
Davey, Pegg, & Son.
G. W. & J. T. Wason, Smith, Scorefield & Co.
George Marshall & Son.
Ralph Fenwick.

Coal Exchange, 17 July 1835.

1103. A Letter from the Secretary of the London Dock Company.

Sir, London Dock House, 9th July 1835.

The attention of the directors of the London Dock Company having been drawn to a memorial presented to the Right Honourable the Lord Mayor, Aldermen, and Commons in Council assembled, by the St. Katharine Dock Company, having for its object (among other matters) to obtain an instruction to the harbour-masters that no vessels shall be moored in tiers in "those parts of the river where the current sets the strongest, but that such parts of the river shall be devoted to the purposes of transit," and that "moorings should be provided for colliers on the opposite south shore, by which (it is alleged) additional accommodation would be afforded, and the stream on the north side appropriated as it should be for navigation;" I am instructed by the directors of the London Dock Company, thus to put the London Port Committee on their guard against a suggestion, which,

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if adopted, would be productive of the most injurious consequences to the London Dock Company, as in that case vessels going up and down the river would pass close to the buoys placed at the Shadwell entrance of the dock. I am further to state, that it has been represented to the directors, that the effect of removing the colliers from the north to the south shore would be to injure the navigation, by lessening the depth of water, as has happened in those places from which tiers of ships have been removed above that entrance. I am in conclusion to add the hope of the directors, if any doubts shall exist in the minds of the London Port Committee as to the foregoing being a correct representation, that the committee will be pleased to permit the company's dock-masters to wait upon them to give all necessary explanation.

I have the honour to be, Sir, your most obedient humble servant,
Henry Woodthorpe, Esq. &c. *S. Cock*, Secretary.

1104. A Letter on behalf of the Society of Merchants trading to the Continent.

Sir, Jeffrey's-square, 15th July 1835.

The Society of Merchants trading to the Continent having been informed that a new code of bye-laws for regulating the harbour-service, mooring and transit of shipping, is now under the consideration of the Port of London Committee, and feeling a deep interest in the preservation of a requisite and safe access to the several bonding warehouses, wharfs, docks, &c., for the deposit of merchandize from foreign parts, upon which the prosperity of the trade and navigation of the port in a material degree depends, I am requested to convey to you, for the information of the Port of London Committee, the opinion of the Society, that the necessary accommodation and safe transit to shipping cannot be secured, unless the present law, which requires a channel of not less than 300 feet in width, be scrupulously enforced; and if obstructions and impediments to the navigation of the river be not removed and prevented, serious injury must arise to the commerce of the port. The accompanying plan, marked (B), for the mooring of shipping in the Pool, appearing to be admirably adapted to afford additional and improved accommodation, is strongly recommended to the favourable consideration of the Port Committee.

I remain, Sir, your obedient servant,
To Henry Woodthorpe, Esq., &c. *Thomas Wilson*, Chairman.

1105. List of the present Members of the Society of Merchants trading to the Continent, established in 1801.

Names.	Of the House of	Names.	Of the House of
C. Aders	—	Jameson Hunter	—
F. Ashmore	—	F. Huth	F. Huth & Co.
H. Bacon	J. Vere, Nephews & Co.	W. Jameson	W. Jameson, Son & Co.
J. C. C. Belt	Bell & Grant.	C. Maltby	T. & C. Maltby & Co.
R. Grant	Bell & Grant.	H. W. Mertens	H. W. Mertens & Co.
P. Bell	Scott, Bell & Co.	J. Nix	Forster & Nix.
H. Blanshard	—	J. Oxley	J. Dunlop & Co.
R. Brown	R. & B. Brown.	N. Palmer	Scott, Garnet & Palmer.
F. H. Brooking	Robinson, Brooking & Co.	W. Parker	—
J. H. Garland	Robinson, Brooking & Co.	Robert Pedder	—
Ald. Copeland, M. P.	Copeland & Garratt.	Sir C. Price, bart.	Price, Marryatt & Co.
R. Cotesworth	Cotesworth & Powell.	J. Ranking	J. & G. Ranking.
D. Powell	Cotesworth & Powell.	Geo. Robertson	Geo. Robertson & Co.
W. C. Cole	Cole, Nicholls & Co.	G. Rougemont	Rougemont, Brothers & Co.
R. Dobree	B. Dobree & Sons.	A. Saltmarshe	Rawson, Houldsworth & Co.
J. A. Droop	—	A. F. Schaezler	Schaezler & Co.
A. Druce	Neville, Sims, Druce & Co.	J. Schneider	J. Schneider & Co.
A. Favene	—	J. Scott	Scott, Bell & Co.
J. Forbes	Kops & Cousemaker.	H. Sillern	Sillern & Granthoff.
J. H. Freese	J. H. Freese & Co.	R. C. Smith	Smith, Goodhall & Co.
J. H. Furse	Heath, Furse & Co.	J. Stooks	Emslie & Stooks.
J. B. Heath	Heath, Furse & Co.	H. B. Suse	Suse & Sibeth.
H. Gibbs	A. Gibbs & Sons.	W. Taylor	Ewart, Taylor & Co.
P. Gowan	Gowan & Marx.	Ald. Thompson, M. P.	Thompson, Forman & Co.
R. F. Gower	Gower, Nephews & Co.	N. Warin	D. Meilan & Co.
R. A. Gray	Melhuish, Gray & Co.	W. S. Warwick	—
R. P. Harris	Richard Harris & Sons.	George Wildes	George Wildes & Co.
Geo. Hathorn	George Hathorn & Co.	Thomas Wilson	Wilson, Wilson & Co.
F. Heisch	Cox, Heisch & Co.	T. F. Wilson	R. & J. Wilson.
C. F. Hennings	—	H. S. H. Wollaston.	—
John Hodgson	Finlay, Hodgson & Co.		
John Horstman	—		

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1106. A Letter on behalf of the Committee of the General Ship-owners' Society.

Sir, General Ship-owners' Society, 72, Cornhill, 16th July 1835.

The committee of the General Ship-owners' Society having received from Sir John Hall, secretary to the St. Katharine Dock Company, a copy of a memorial of that body to the lord mayor and court of aldermen, dated the 28th May last (accompanied with a plan,) proposing the removal of all the colliers to the south side of the river Thames, and having given the subject their deliberate consideration, I am directed to inform you, that they are of opinion, that the tiers, as now arranged between Cole-stairs and the Horseferry, are in the only situations in the Pool in which they can be placed with security to the coal colliers, and that any change of locality admitting of sufficient depth of water (unless it be at a great and inconvenient distance), would materially injure the shipping and other interests involved in that trade, and be injurious to the public at large. The committee would also submit, that the removal of the tiers would cause such an accumulation of mud and sediment, as greatly to obstruct the navigation of the river; and they desire me respectfully to express their request, that should the London Port Committee entertain the proposed alteration, they will allow a deputation from this body to confer with them, before coming to any decision thereon.

I have the honour to be, Sir, your very humble servant,
William Oviatt, Secretary.

To the Chairman of the Thames Navigation Committee, Guildhall.

1107. A Letter on behalf of the Directors of the Grand Surrey Canal Company.

Grand Surrey Dock Office, 2 White-lion Court,
Gentlemen, Cornhill, 17th July 1835.

I beg leave, by desire of the directors of the Grand Surrey Docks and Canal, respectfully to address you on the subject of a memorial now before you, dated the 28th May last, and which has only just come to their knowledge, from the St. Katharine Dock Company, praying an alteration in the present mode of arranging the tiers of colliers in the river Thames; and as the alteration prayed for would, if permitted, most seriously obstruct, if not block up, the shipping entrance to the Grand Surrey Docks, and consequently affect the interests of this Company, the Board humbly pray leave to state to your committee, by their dock-master, Captain Smith, the objections which present themselves to the plan in question, so opposed to the due upholding and enjoyment of those privileges granted them by their Act of Parliament, and sanctioned by the honourable corporation of the City of London.

I have the honour to be, Gentlemen, your most obedient humble servant,
Samuel Travers, Secretary.

To the Honourable the Port Committee of London.

1108. A Representation of certain River Pilots as to Impediments in the Navigation.

Sir, Gravesend, 24th January 1835.

We beg leave to represent to you that, as river pilots, we have great difficulties to encounter in conducting ships and vessels through the Pool to the St. Katharine's and other Docks. The irregular state of the tiers has long exposed us to great difficulties and dangers, but it has now become intolerable. We are personally responsible for damage occasioned, which we cannot prevent, by reason of circumstances, for the regulation of which, it is alleged, sufficient authority is given to public officers; but we have not the means of putting this authority in motion. We refrain from offering you minute evidence of the open and unchecked disregard of regulations in the Pool, for we are generally too much occupied with our duty to attend to anything beyond the immediate safety of ships and vessels we have in charge. Under these circumstances, we appeal to you for your kind assistance, and if it shall be your pleasure to direct some individuals to report upon the irregularities and dangers we now represent to you, they may commence to-morrow, for no day passes that great impediments do not occur to the free passage of the Pool, so constant and notorious has the evil become from open neglect.

We are respectfully, Sir, your obedient servants,

Joseph Voy, senior.	*Matthew Reid.*	*Robert Nicholson.*
Alexander Smith.	*William Chapman.*	*J. C. Jameson.*
Thomas A. Daff.	*John Bennett.*	*William Harrison.*
Thomas Forss.	*William Fothergill.*	*Michael Boxer.*
Charles Warner.	*J. R. Mason.*	*James Kindred.*
William Palmer.	*Anthony Fothergill*, senior.	*George Stanley.*
W. T. Osgood.	*William Collins.*	*Thomas Garbutt.*
John Nerjor.	*Richard Ross.*	*John Phillips.*
Edward H. Clarence.	*Isaac Starbuck.*	*George Johnson.*
T. R. Barwick.	*W. Kitchner.*	*William Batchelor.*
J. C. Walker.	*George Irvine.*	*Benjamin King.*
John Crussill.	*Robert Hughes.*	

To Sir John Hall, Knt., Secretary to the St. Katharine Dock Company.

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1109. *Chairman.* Is there any person here from the London Docks? Mr. Blunt, do you attend on the part of the London Dock Company?

1110. Mr. *Blunt.* I attend here this morning to see what is going on. I was not aware of this meeting till very recently, and therefore I am not prepared to go into any discussion, or to give any evidence.

1111. *Chairman.* You have put in a statement, have you not?—Mr. *Blunt.* Yes, we have, requesting that the Dock Company may be heard, before any resolution is come to.

1112. *Chairman.* Will you be heard now?—Mr. *Blunt.* I was not aware of this coming on to-day: I have but recently returned from the country, and I have only within the few last days joined the company again. We gave out that we should be glad to be heard upon this. I am not so fully prepared as I should have been, if I had thought that I should have been called upon to say anything to-day; but the dock-masters have got such evidence to substantiate their view of the case as they have thought necessary, which is not quite prepared, and therefore it would not be convenient for us to proceed to-day.

1113. Mr. Alderman *Venables.* Are the committee to understand that the dock-masters have intimated their opinion?—Mr. *Blunt.* It is not altogether that which they would be prepared to do.

1114. Sir *John Hall.* With reference to going into the inquiry, I apprehend that, as to the St. Katharine's Dock Company, whom I appear for, we have no desire to throw obstacles in the way; but if the committee would permit me, after having heard some few observations from Mr. Alderman Wood, to go into evidence upon the plans, and to offer such other evidence to make out our case afterwards, that would be the time for the parties who object to be heard, and under those circumstances it would very much simplify the case.

1115. *Chairman.* Do you mean to offer any evidence with regard to the tiering of vessels?—Sir *John Hall.* There are two plans which I propose to give evidence upon, and one of those is with regard to the mooring of colliers in a different manner.

1116. *Chairman.* The opinion of the committee was taken before you were called in, and they agree with me in opinion, that the points to-day are the plans, and you are to confine your attention to the plans only.—*A Member.* Mr. Humphery stated that he merely put it in, in order to give an opportunity of producing another; under those circumstances the committee were to appoint.

1117. Sir *John Hall.* I should hope the committee would permit the St. Katharine Dock Company to be aware of the tenor of any memorial that has been read, and entered upon their minutes.—*A Member.* Certainly, we do not wish to conceal a single document. —Another *Member.* Have all parties been made acquainted with the circumstance that this day has been fixed to take this question into consideration? because there are many parties who are very much interested in any alteration taking place, and who might be totally ignorant of our now going into the question of fact.—Sir *John Hall.* I apprehend that the committee are not coming to any decision to-day, and therefore the matter will be open to those parties, because they will have an opportunity of reading the evidence that is given.——*Chairman.* Mr. Humphery has been informed, has he not?—The *Town Clerk.* Yes, sir.

1118. *Chairman.* Now read the memorial.

[The Memorial from the wharfingers and occupiers on the banks of the river, with the signatures thereto, as before entered (1101) was read. The Letter from the Grand Surrey Dock-office, also before entered (1107) was likewise read.]

1119. Mr. Alderman *Thomas Wood.* Gentlemen, I will state at once that I am not professionally concerned in this matter; but having for some time given my attention to it, in the course of it my attention was called to the state of the several ports, the port of London in connexion with other ports of this kingdom; and in consequence of that I found it was my duty to give a notice of motion to the court, which I ultimately withdrew from an understanding with the then chairman, that the whole subject matter was under the consideration of this committee. But as now you have given your consideration to some bye-laws, which bye-laws appear to me to have objections, it was necessary that the subject should be again brought under the consideration of the committee in another form; and therefore I consented to present a petition from the St. Katharine Dock Company, which petition is not so much the result of their own volition, as it is in consequence of other persons urging it for them. I now hold in my hand a memorial, dated Gravesend, which was signed so long ago as the 24th of January last; it is this: "We beg leave to represent to you that, as river pilots, we have great difficulties to encounter in conducting ships and vessels through the Pool to the St. Katharine's and other docks. The irregular state of the tiers has long exposed us to great difficulties and dangers, but it has now become intolerable. We are personally responsible for damage occasioned, which we cannot prevent, by reason of circumstances, for the regulation of which, it is alleged, sufficient authority is given to public officers; but we have not the means of putting this authority in motion. We refrain from offering you minute evidence of the open and unchecked disregard of regulations in the Pool, for we are generally too much occupied with our duty to attend to anything beyond the immediate safety of ships and vessels we have in charge. Under these circumstances, we appeal to you for your kind assistance; and if it shall be your pleasure to direct some individuals to report upon the irregularities and dangers we now represent to you, they may commence to-morrow, for no day passes that great impediments do not occur to the free passage of the Pool, so constant and notorious has the evil become from open neglect. We are, respectfully, sir, your obedient servants, *Joseph Voy*, sen, *Alexander*

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Alexander Smith, Thomas A. Daff;" and then it goes on with a variety of signatures, which are open to the inspection of the committee.

1120. *Chairman.* That is recited in the printed memorial?

1121. Mr. Alderman *Thomas Wood.* No, sir. If I was rightly understood by the committee, I stated that those were the reasons which the St. Katharine Dock Company had, in common with others; and it was under those circumstances that they had been induced to bring the subject under the consideration of the committee; there may be others which it is not necessary for me to go into, and therefore I shall confine myself, as briefly as I possibly can, to that consideration, namely, the unobstructed width of the channel, which we say ought to be 300 feet, as set forth in the memorial.

1122. *A Member.* I beg pardon, I am sorry to interrupt the worthy alderman, and I hope he will excuse me for doing so on this occasion; but we are not here to-day to hear parties who appear professionally on their memorials, because Sir John Hall has come here on the part of the St. Katharine Dock Company. Now the worthy alderman has before stated that he does not appear professionally for the St. Katharine Dock Company; he does not appear for the pilots of the river, nor does he appear professionally for any one; I therefore submit that he not appearing for any body of persons who may be interested on this occasion, it will be irregular for him to be heard.

1123. *Chairman.* I think the course of the corporation of the city of London has always been, when a member of the court has presented a petition, to allow the member who has so presented the petition to be heard.

1124. Mr. Alderman *Thomas Wood.* I hope this committee will not lay down a rule which is at variance with the rules of every other committee I have ever had the honour of attending. I have had the honour of being chairman in a number of committees, and have invariably thought it right to hear a member who presented a petition; I have always found that to be the course. I do not wish to be heard on this occasion, I only want to explain why I should interfere with the solemn decision of the committee; but if that is objected to, I will not take up the time of the committee any further.

1125. *Chairman.* You are placed on the court, and you will have an opportunity of being heard another time.

1126. Mr. Alderman *Thomas Wood.* Then I am to understand you to say, that I have been invited here to-day only for the purpose of being told I am not wanted here.

1127. Mr. Alderman *Venables.* Our object is to investigate the matter as fully as we possibly can; we shall not do so discourteous an act as to object to Mr. Alderman Wood being heard altogether; he may be heard at some other time.

1128. Mr. Alderman *Thomas Wood.* I am not here as a professional man, I am here as an alderman of the city of London.

1129. Mr. Alderman *Venables.* I understand my friend Mr. Alderman Wood to say so, and I was merely going on to say that he cannot wonder, he not being engaged professionally, that there should be an objection taken to his being heard now.

1130. Mr. Alderman *Thomas Wood.* I do not want to take up the time of the committee, if there is an objection made to my being heard.

1131. *A Member.* I believe the best way will be to let Mr. Alderman Wood proceed.

1132. Mr. Alderman *Thomas Wood.* I am quite content to retire at this moment, but I own I should have been as well pleased to have been allowed to go through my statement; it is a very great question to the public, and a question which has occupied my attention for some years; but if the committee wish to settle and decide upon the question, by all means let them do it. Having had the honour of presenting this petition to the court of common council, let me be permitted to say that I did not do it upon insufficient grounds.

1133. Mr. *Bridge.* If Mr. Alderman Wood will say there is any new matter beyond the St. Katharine Dock Company, I, for one, will sit here till twelve o'clock at night to hear him; but if we are only to hear his view of the case, which we have before considered, why I have my view of the case as well as he, and, probably, as far as nautical matters may go, one opinion may be as good as the other. If Mr. Alderman Wood has anything beyond that of the St. Katharine Dock Company to urge, I think we should hear him; if not, then I think he should not be heard, because it is a loss of time to sit here and consider points we have before disposed of, when we have only one point before us to consider.

1134. Mr. Alderman *Thomas Wood.* Will the worthy and honourable member tell me what has been said before, and then I will tell him whether I can advance any new matter? This is a subject of too great importance to the public to be treated lightly, even upon technical grounds. It involves conflicting interests of no ordinary amount. I am aware that the committee is placed in circumstances of great difficulty on this occasion, and I am satisfied that in proportion to the amount of the conflicting differences, by so much is it incumbent upon the committee to hear everything than can be laid before them, and to do, as much as can be, justice to all, with as little injury as possible. In relation to the width of the river, steam navigation is altogether a new era. A former bye-law has suggested the propriety of keeping something like 300 feet; that width was actually named. I believe the harbour-masters thought it was impossible to allow a greater width than 250 feet; there was a great conflict in the evidence about that. We then came prepared to support the case requiring 300 feet. Now what are the objections that have been raised against it? One person very modestly says, it will force all the ships into the dock. I am prepared to deny that assertion. I must confess I am rather surprised to-day to find the great stir which is made in this matter by the London Dock Company, born with respect to the tier-

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ing of the vessels, and also with reference to the width of the river, for the complaint made is, that you are giving too great accommodation to the public.

1135. Mr. *Bridge.* Mr. Chairman, I wish merely to submit whether we are not now going into that matter which we resolved should not be gone into to-day? If the committee have that view, I submit it will be better to hear this at another time. Do we not want to hear Sir John Hall before this is gone into?

1136. *Chairman.* I consider that Mr. Bridge is correct. We are anxious to hear every gentleman who is able to address anything to the committee within his own knowledge which will affect the question. To go into the whole matter, as a matter of opinion, is not the object of the meeting to-day. If you have anything to state of your own knowledge, with respect to the tiering of vessels, we will hear you; but we do not want to go into any question arising from the 250 feet; that is going into the old question, and will open too wide a field to go into to-day.

1137. Mr. Alderman *Thomas Wood.* I wish to confine myself to the petition I present, and the observations that can be made against it. If the committee are of opinion that I cannot go into it, I will withdraw it.

1138. *Chairman.* The resolution of the committee was, that we should hear Sir John Hall upon both points first.

1139. Mr. Alderman *Thomas Wood.* I only wish you had stated this before. I should have thought that the customary courtesy of the court would have induced the committee to have heard me, because I have been invited here.

1140. *Chairman.* You can hear what Sir John Hall says first, and then it is very likely you can make some amendment upon that.

1141. Mr. Alderman *Venables.* Any new information that can be given by Mr. Alderman Wood upon the subject I am sure will be received with attention; but if it is to be said that this proceeding is to give a preference to the memorial which has been put in by Sir John Hall, and to give him the advantage of any particular arrangement, and to argue upon it now, this is not true. The mode of proceeding will be this: when the committee have all the evidence before them, if they think it necessary to avail themselves of your assistance, or the assistance of any other gentleman, I, for one, shall be an advocate for their being heard; because I think we ought not, in a matter of such great importance, and when the interests of so many parties are concerned, to shut the door against any kind of information that can be given.

1142. *Chairman.* The resolution is that Sir John Hall shall be heard.—Mr. Alderman *Thomas Wood.* I contend that the only proper way is for me to support my own petition. —*A Member.* I think we are not here for this purpose. The worthy alderman has already stated that he does not appear professionally upon the petition, and we are met for the purpose of hearing, and are all prepared to hear, Sir John Hall.—Mr. Alderman *Thomas Wood.* I am only sorry that these parties have intrusted me with their petition, because every gentleman retorts upon me that I belong to a profession; I am constantly taunted with being a professional man; I desire to put it strongly, because every gentleman has used the expression. I have taken the course which I have seen pursued in other instances many times, namely, that when a gentleman has presented a petition to the court of common council, he has always been allowed to be heard upon that petition.—*A Member.* I apprehend the better way will be to hear Sir John Hall first.

1143. Sir *John Hall.* Gentlemen, I was about to avail myself of the opportunity of presenting to your attention, in as few words as I possibly could, the object of my attendance here to-day; and I shall endeavour to do it very shortly. But I think it necessary in the first place to say a few words upon the attendance of Mr. Alderman Wood; I declare to you that, with the exception of five minutes' conversation, and that too prior to the presentation of the memorial, I have not seen him upon the subject, and therefore I apprehend that the observations which he was about to address to the committee upon the great public importance of the question were such as he was fully justified in making, because he feels as deep interest in it on behalf of the public as any other person.—*Chairman.* We do not shut out Mr. Alderman Wood from making those observations, we only wish to hear you first.—Sir *John Hall.* I have no doubt that the declaration of the worthy chairman is perfectly sincere, and I will at once commence my observations. Gentlemen, I solicit your patient and deliberate attention to the remarks I shall have to make with respect to this momentous question, because, however there may be conflicting interests, and conflicting interests undoubtedly do exist, yet on the part of the St. Katharine Dock Company I beg to disclaim any local interested motive. They have no wish whatever that any regulation shall be adopted with respect to the navigation of the river which shall not be considered by this committee as a measure beneficial to the public at large. It is not on behalf of any particular docks or wharfs that I appear here. I ask you, the committee, to direct your attention to this subject upon public grounds alone, and not with reference to the particular interests of the St. Katharine Dock Company or any other company. I ask you to determine whether any further remedy is necessary, or whether the plan which I now lay before the committee is such a plan as ought to be adopted, and the improvement thereby suggested is deserving of consideration. Upon those two points I beg leave to say, briefly, that an impression appears to exist in the committee, which I can only account for from their being a changeable committee, that is, a few, I believe one half, go out every year, and other members come in in their places.—*Chairman.* No, that is not so; only one-fourth go out. —Sir *John Hall.* The fact is, then, that one-fourth depart. The impression which appears to me to prevail in the committee, that the St. Katharine Dock Company have been heard

upon

upon this is erroneous; that is not the case; they have never been heard upon this alteration from that which the court had solemnly determined upon, namely, that there should be a passage of not less than 300 feet, and it was only by mere accident that the St. Katharine Dock Company heard that an alteration was contemplated, and then they found it necessary to present themselves to your notice. But, as far as regards the 300 feet which had been solemnly decided upon——

1144. *Chairman.* Do not enter into that.—*A Member.* It is not the fact that the committee came to a solemn determination to preserve the 300 feet; the determination that the committee came to was merely that that was the law at that time, and that until it was altered it should be preserved.—*Chairman.* You are both wrong. Allow me to inform you, that on the 12th of April 1833, during the time the committee was sitting, the memorial was put in, and the committee in 1833 passed a resolution that the 300 feet for the navigable channel should be kept clear. About two months afterwards the chairman of the committee called upon the harbour-masters, or rather the harbour-masters called upon the chairman of the committee, and told him it was utterly impossible to maintain that width of 300 feet; his answer was, you must maintain it as well as you can. I don't ground anything upon that. But on the 30th of December 1833 the same committee, Sir John Hall's committee, again considered the subject of the bye-laws.

1145. Sir *John Hall.* I must, with every possible respect, protest against that being called my committee, or any committee being called my committee. I can only say I respect this committee as much as that.

1146. *Chairman.* As I understand the entry, it is this: on the 30th of December 1833, at a meeting of the members of the Thames Navigation and Port of London committee, it was "Resolved, that a space of not less than 300 feet, as far as practicable, be maintained in the Lower Pool for the purposes of navigation, and that in all parts of the Lower Pool wherein such passage shall be in the stream between tiers of ships and the shore, the space of 300 feet be computed from the tier to the shore at low-water mark." Improvements were prepared in the committee. There is nothing about the committee being appointed. —Sir *John Hall.* Whereabouts is it about its being my committee?—*Chairman.* The reason I call that committee to your mind is, that you spoke so highly of that committee. —Sir *John Hall.* I really wish to treat the committee with every mark of respect, but I do not think the business of the committee can be conveniently conducted if I am to be interrupted in this way; if I mis-state facts I wish to be set right upon those facts, but I do not think the way to do that is by allowing the chairman to reason upon the facts.—*Chairman.* I am showing that what you state is not a fact.—Sir *John Hall.* Will you allow me to state the facts, and then set me right if I am wrong.—Mr. *Bridge.* It is not a bye-law, as you stated it; it is a suggestion of the committee. The directions given to the harbour-masters were to keep the 300 feet clear as far as possible.—Mr. Alderman *Venables.* I rise to order; I am quite sure that, however gentlemen may feel opposed to the statement, unless they forbear from the expression of their feelings, and allow Sir John Hall to go on, we shall make no progress.

1147. Sir *John Hall.* I beg to assure you, sir, that no man will rejoice more than I shall to be set right if I mis-state anything. I appear before you on the part of the St. Katharine Dock Company under very peculiar circumstances, because, of the proceedings which have been alluded to I have no knowledge whatever; and one of the grounds of our coming before this committee to-day is, that we may be put in possession of the facts with regard to the alteration of the 300 feet. We are ignorant of the grounds upon which that alteration is proposed, and it may be true that you may have minutes of which I have no knowledge. It is right you should recollect that in the year 1829, after a very laborious investigation, the committee decided that a space of 300 feet was to be preserved for the navigable channel of the river; in that determination the Court of Common Council concurred, the Elder Brethren of the Trinity House concurred, the harbour-masters concurred, and the Judges confirmed the bye-laws, and those bye-laws are now in existence. In the year 1832, when this subject was again brought before the committee, there were certain representations made to the committee as to the inexpediency of keeping this 300 feet of navigable channel open, while on the other hand there were other representations made as to the expediency of extending that 300 feet, and the evidence preponderated in favour of the preservation of the 300 feet. Now, on the 12th of April 1833, as stated by the chairman, a resolution was certainly passed by the port committee, which I will read; it was an order issued by the committee after a full investigation of the subject; "Ordered, that the harbour-masters do see that the provisions in the bye-law for keeping open a free and unobstructed passage-way of not less than 300 feet are scrupulously enforced; and particularly in the Lower Pool that they do not permit at any time a greater number of ships or vessels being moored at the several tiers than is allowed by the said bye-laws." That was a public order. Now let us follow the proceedings, and see what was done. On the 30th of December following it was confirmed. I verily believe it to be true, that on the 30th of December following the committee confirmed that. After having a great mass of evidence they decided that the 300 feet should be adhered to.

1148. *Chairman.* It is not so; it is that they shall be adhered to "as far as practicable." —Sir *John Hall.* I am aware that you put in the words "as far as practicable," but those words mean nothing. If a thing is ordered to be done, the order means that it is to be done as far as by human possibility it can be; if the thing is physically impossible, then it does not matter. Now, gentlemen, on the 30th of December, the committee, after going through the [illegible] of the evidence, and being satisfied in their own minds that it was expedient——A *Member.* It was only a majority; it was not unanimous.—Sir *John Hall.* I mean

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I mean a majority of the committee. I do not mean to say that there were not some dissentients; but, as far as the committee by their official act could do anything, they did this; they determined upon adhering to the 300 feet, and a draft of the bye-laws was signed approving of that 300 feet of navigable channel.—*Chairman.* "As far as practicable."——Sir *John Hall.* I said so before. Now I have been told that there was no such bye-law: we won't discuss the practicability, because the meaning of those words is clear—the meaning has no relation to any thing impossible. Gentlemen, there are the names of certain parties who gave their evidence before the committee, among whom is Captain Fisher, whose evidence I shall refer to by and by. You have various petitions from pilots, dock-masters, and others, a petition from the wharfingers above bridge, and a petition which I shall certainly speak of, because it happens to be from the dock-masters of the St. Katharine Dock Company, of whom, therefore, it may be said that they were interested, and that their statement is to be looked at as interested. Then comes the question, as to whether we have a right to be heard upon the new resolution of the committee, which is intended to have the effect of diminishing that 300 feet of navigable channel to 250 feet; and upon that I must be permitted to follow up what I said before, namely, that I beg to assure the committee that the St. Katharine Dock Company desire the greatest publicity to be given to this matter. The more parties there are to attend this investigation, the more they will be satisfied. The St. Katharine Dock Company have taken up this subject on public grounds: I beg to disclaim any thing like an individual interest beyond that which the St. Katharine Dock Company have, in common with others, in the general commerce of the port of London. I am told, when these plans are objected to, that I may hear imputations cast upon the St. Katharine Dock Company; I may hear it said that the object is to drive ships into docks. Now I never knew an instance where a man had only a weak case, that he was not obliged to bolster it up by resorting to the imputation of motives. As far as regards that charge, I shall merely observe, it is paradoxical, because if you mean to say that, you must satisfy me that by means of this it will have the effect of taking ships away from quays, and putting them into docks. They are advocates for diminishing the channel when they say a less channel should be kept; but their argument is, you diminish the channel, and it will drive them away to the docks. Now that, as I said before, is paradoxical, because the fact is this, the channel is above Limehouse-hole, where every ship must pass. It is clear, therefore, that the argument is ridiculous. Now, as far as regards the argument to which I am coming, and which arises out of the passage of the 300 feet, I have appeared formerly before the port committee, and I am certain, on the part of the St. Katharine Dock Company (after some years' time and attention to these matters), that if the port committee had condescended to have called before it the St. Katharine Dock Company, or any other of the parties interested in this question, and had said to them, We have been looking into this subject again, and we have found reason to alter the opinion which we before entertained, and there are the grounds upon which that opinion is altered; but we will give you the opportunity of seeing those new grounds which have caused our present opinion to be at variance with our former decision, and then you can say whether you have any thing to offer to our consideration, which you think will induce us to alter our present opinion:—Sir, the moment that the St. Katharine Dock Company were apprized—and, as I said before, they were apprized accidentally—of this important alteration to which this committee had come, they did request that they might be heard upon this subject, and they transmitted a certificate from a great many of the practical navigators of the River Thames, who are the persons most competent to determine upon such a question. We transmitted that certificate, pointing out to the committee the vast inconvenience of diminishing the navigable channel from 300 feet to 250 feet. We asked for an answer to that certificate: the answer we received was, We won't go into it. Then finding that, we humbly requested that they would have the goodness to communicate it to the Corporation of the Trinity House—they have not got the public document; they say they have not. They say that was not the direct course to pursue, of sending back the original certificate; and my reason for advising them not so to do is this, that, strictly speaking, the Trinity Corporation are not a controlling power, and therefore they have no right to interfere with the deliberations of this committee, but they have only to receive directions, and to act upon them. If the port of London have not confidence in their own acts, let them have recourse to practical men: that is the proper course. But as far as regards the question of this certificate, I do say most distinctly, that the St. Katharine Dock Company had a right to present that certificate, and to be heard before any alteration was adopted. Now, what is the next course they take? They ventured to ask the port committee whether they would tell them what was the number of feet that was to be laid down for a ship occupying a space in the River Thames. The reason for doing that was, because it follows as a matter of course, that if you cannot provide for the number of ships, the bye-laws must in some other way. We were told in answer to that, They would not. Then we asked, Gentlemen, will you give us an opportunity of knowing whether your bye-laws can be carried into effect or not; you have been acting upon some official document, or on the opinions of some practical men, will you do us the favour to tell us what is the number of feet they calculate for each ship? The answer is, We won't tell you. All information of the nature of the evidence, and the grounds upon which the port committee have determined to depart from the decision of the previous committee, has been withheld: all the grounds of information and explanation have been withheld from us; they give us no reason for the alteration and deviation from the existing bye-law, against which there was no objection. I contend, that if the harbour-masters make representations to the port committee, which are to have the effect of making them come to a resolution

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resolution in direct opposition to the existing bye-law, that all the parties who are to be affected by that alteration of the law ought to have notice, for the purpose of advocating their interests, and for the purpose of showing, from the suggestions of competent persons and practical officers, that that alteration cannot be carried into effect. It is material to know whether the port committee have decided for the alteration upon good and reasonable grounds. I would also take the liberty of observing, that after near three or four years that I have had the honour of attending before the port committee, never have I seen a single plan laid before the committee. I have tried to provide for that difficulty, and have caused plans to be made, because I say, let every man judge for himself; don't be led away by the members of the port committee; attend to their representations, but judge for yourselves. I now give you the opportunity of judging for yourselves, by showing you a plan in the event of this bye-law being carried into effect. I beg you to understand, that if I cannot satisfy you, by this plan, that the proposed alteration is wrong, I then put in the other plan, with a second object. I have often heard it said, you are constantly opposing a thing, but you don't propose any thing instead of it. Now I venture to lay before you a plan for your consideration, but that does not involve the necessity of your adopting it. If you are of opinion that the port of London will be accommodated by certain modifications of this plan, it is open to them. In the mean time you have the opportunity of forming your own judgment: I have given you two plans, one showing the mode of tiering the colliers, and the other to show the effect of the present bye-laws. I propose now to say a few words in explanation of this first plan; and then to bring under your notice the advantages with respect to the second plan. And here arises a question which I should wish set at rest before I go further into the discussion: Am I to understand, Mr. Chairman, that the port committee, under advice, object to the 25 feet that is laid down for every ship?—*Chairman.* Yes.

1149. Sir *John Hall.* How many do they propose?—*Chairman.* Twenty-two.——Sir *John Hall.* Then the representation that was made to me was wrong; I was told it had crept up to 20.

1150. Mr. *Bridge.* I do not understand you, Sir John Hall; you say it has crept up to 20 feet.—Mr. Alderman *Venables.* It is open to observation and objection.—Mr. *Bridge.* Sir John Hall is making a remark upon a body of officers who are not here to defend themselves.—Mr. Alderman *Venables.* You can defend them afterwards.—Sir *John Hall.* I do not mean to make any reflections upon them; I respect them, although I do not agree with them in their conclusions.—Mr. *Bridge.* I am only asking for explanation, because I think if any thing improper is done by the officers, it is nothing more than right that it should be brought before the committee.

Sir *John Hall.* It is a most important point to ascertain the degree of space which these tiers will occupy. With regard to those 25 feet, I really would be spared occupying much time. If you refer to Captain Fisher's evidence given before the former committee, you will find he admits that to be the fair and proper average for every ship. I will put in the result of my own personal examination, by which I prove that 25 feet practically is the least that ought to be allowed for every ship to lie in tiers. I do not mean to deny that if they are lying in slack water, and they are not to be removed, that 22 feet will be sufficient for their accommodation; but I wish to call the attention of the committee to the practical effect that will be produced, and to see whether it is possible that in the ordinary occurrences of the river 22 feet will be sufficient. Now I will show you what the result of the examination is, and I will take it from this paper, because I mean to put it in as part of my evidence, together with a letter I received from Captain Fisher, admitting 25 feet was the average. I have examined, and have taken a line from the innermost shore, and I carry the line right across to the outermost shore, and then I show what line is occupied by such a tier. The consequence therefore will be, that 22 ships at 25 feet each occupied by that line and that tier, would occupy a space of 550 feet; I fear not contradiction upon this subject, because I can produce witnesses who will prove that 25 feet has been the number of feet allowed for the mooring of a ship. Now here is the effect of the trial that has been made: it has not been made at all the tiers, but at Hanover-hole upper tier with 10 vessels, it is 230 feet across, 10 vessels measured together 230 feet, 7 vessels remained, and they measured 161 feet, being therefore 17 vessels in one tier, the measurement of which together is 391 feet, the average is 23 feet. Then in Hanover-hole middle tier, 12 vessels measured 270 feet; the eight remaining vessels 180 feet, making together 450 feet, and these give an average of 22 ½ feet. Then the lower tier at Mill-hole, where there were 17 vessels, they measured together 525 feet, being an average of 25 feet to each ship. Then at the Cole-stairs tier,—and now, gentlemen, I am running upon the Upper Pool on the north side,—at the Cole-stairs tier there are 360 feet occupied by 14 ships in the tier, making an average together of 25 feet 8 inches to each ship. At the Bell-wharf tier there are 24 ships occupying a space of 630 feet, which gives an average of 26 feet 3 inches to each ship. And, gentlemen, you will recollect that this is including fenders, and including all the moorings of the ships, with the wind operating upon them. At Stone-stairs tier there were 25 vessels lying there at that time, and they gave an average of 25 feet. At Ratcliffe-cross upper tier there were 20 vessels, and they measured 493 feet, giving an average of 25 feet 8 inches. At Ratcliffe-cross lower tier there were 13 vessels, and they measured 325 feet, giving an average of 25 feet. So that the grand total brought down is 100 ships in the Lower Pool, and 50 ships in the other pool, altogether making a space of 3,801 feet: the average of which in the first part, namely, the Hanover-hole tier, is 23 feet 5 inches; in the lower tiers, 25 feet 4 inches, and 24 feet 8 inches; and you will recollect that this is without the craft outside: there is not a tier without lighters, which lighters take up 18 feet; and

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therefore, practically speaking, I do not think that there is much difference between the harbour-masters and myself upon this point. They say 22 feet, and I say 25 feet—at the rate of 25 feet; and I contend that I have been perfectly justified in making my calculation upon that estimate. But, however, Gentlemen, the difference of two or three feet will not alter very much the proposition. Now my objection to their being placed in that manner is this: in the first place, it will practically so narrow the channel, that even if you were to abide by the determination of the 250 feet for the width of the channel for the purposes of navigation, I pledge my existence that you could not preserve it; there are too many ships in the tiers.

I admit you may, by diminishing the number of ships, widen the channel: but there is another thing that I want to bring the attention of the committee to, and which is confirmed by the bye-laws, and by the opinion of the harbour-masters. The present bye-laws require that 40 feet shall be kept, as between the tier-width and the shore. They have admitted that such a law cannot be carried into practice. Now, why do I say that? Why, because they have recommended you to repeal that law. They have taken out the 40 feet. I have taken 100 feet as the distance between the innermost ship and the shore, and I beg to be understood that I commit myself so far to that fact, that I pledge myself to its correctness, and I have brought my mind to the fact from personal observation. I am prepared to say that 100 feet is the proper average between the innermost ship and the shore; but that 100 feet which I have allowed is not practically the number of feet that exactly exist day by day. One of the reasons is this, if you look at the soundings upon the charts you will find this is the proper distance, because you will see what is the depth of the water to 14 feet,—what is the number of feet in order to get into a depth of water of 14 feet at low-water mark into the north channel. The result of that examination is, that in some parts I find it, I do not say generally, I only say in some parts,—which shows how necessary it is that you should come practically to an opinion of this kind,—I found in some parts, at Cole-stairs tier, at Stone-stairs tier, opposite the Brewer's-wharf, and at the Ballast-office, there were upwards of 200 feet width in order to get to dead low-water mark; and it is necessary to have that, because a ship will not lie there unless she can swim. Any captain of a vessel would tell you this; "I am not going to lay my vessel where she will be aground;" therefore, I say that less than 100 feet cannot be allowed for the occupation of those ships. I have one instance, which I have looked at myself, where there are some 34 feet, others 102 feet, others 116 feet, and others 308 feet, but that is a very extreme case. I wish to press this upon the attention of the committee, that if you lay down a plan, by which you mean to benefit the public, you must arrive at a knowledge of the facts by measurement, just the same as if you wanted to determine what the width of a footpath was to be, you must measure it; one ship will occupy more space than another; in taking the result you will find that 100 feet must be allowed. Now just look at this, and you will see if 100 be not necessary; this is all drawn to a scale; all this plan I have figured myself: as far as the river is concerned, it is precisely a copy of your plan. Now, looking at this, it is clear that as much as 100 feet are necessary for the occupation off shore; and as I say, and as I venture to challenge contradiction, it is clear that 25 feet for a ship are necessary: take that upon 22 ships, and that is 550 feet; add that to the 100 feet between the low-water mark and the innermost ship, and you get 650 feet. Now the width of the river, between the low-water mark and there, is 860 feet; deducting therefore the 650 feet from the 860 feet, it leaves you 210 feet. Now, gentlemen, these are practical results: and I will ask you another question, gentlemen, which is most important. If it be true that the harbour-masters are right, that a less number of feet are necessary for the accommodation of each ship, why do they recommend a diminution of 20 feet? because if it is necessary to have 22 feet per ship, and it is only necessary to have 40 feet from the shore, which your bye-laws require for the in-shore navigation, then you will have a width of 360 feet. There is a manifest error in the principle, and I am sure, that if gentlemen will only direct their attention to it, they cannot resist the result. I have submitted to you that which would practically show the effect upon the mooring of ships. You will see also what will be the effect upon the navigation. Now I say that, take one year's end to another, the average width of the Pool for the purposes of navigation is not more than 150 feet; sometimes it is not 90 feet; if it is 150 feet, it is only a very little. I will ask what is that for the width? or even if it were 250 feet, it is but little; does it not contribute to a still greater increase of the accidents that must occur in the river, by driving all this mass of shipping there? I am now coming to that point with regard to your property, about which you have so great an interest. I say that, in point of fact, the very means of approach depends upon the width. Now what is it you are going to allow? You are going to allow the lower part of the Pool to operate as a complete obstruction. The consequence will be that the trade will be diverted from the port. Now, I am most anxious to preserve it. As far as regards the placing of these tiers, I will, as I said before, take the liberty of reading to you a statement which I mean to put in, because there can be no dispute about it. The tiers are now moored, as you observe, on the north side of the river, between Shadwell and the Regent's Canal; and incidentally I will just observe also, that this is a thing which I take credit to myself individually for, because I did suggest it; all these abominable tiers, the Botany-bay tier, and others, have very wisely been prohibited, and a very great and important advantage that has been to the passage of the Pool.

Now, gentlemen, you will observe these ships so situated, and you will observe that it is at a part of the tide where not only the flood-tide sets in, but also the ebb-tide, and the natural current runs exactly on the north shore, and the ebb-tide does exactly the same thing. I would ask any seaman what the consequence of this is? I ask you, gentlemen, who

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perhaps may not be much acquainted with nautical matters and with navigation, whether you would not prefer a straight channel rather than have to make an acute angle? Look at the effect of this acute angle: you will see, when the wind is (as it generally is for nine months in the year) from the north-west to the south-eastward, when the wind is in that quarter there are no means to get in but by putting the ship's head in, and hugging the north shore, as the seamen technically call it. This is not done by one ship alone, but you will be pleased to recollect that there are six or eight ships following one another, and by the time they get in what is termed the slack water, that is, partly into the eddy, they go in dropping up across the tide, forming a complete obstruction to the navigation, because nothing can pass by them on account of that floating obstruction, which in point of fact they form, and that arises from their not having a straight passage, but being obliged to drop from one angle to another angle. But, gentlemen, it does not stop there. Does the angle cease here? No; there is another, which is worse, if anything, for the moment you get up beyond Globe-stairs, here lies this tier which is called Mill-hole tier; and when you come up the Pool you look into a forest of ships, and in many instances the channel between the innermost ship is wider, that is, the channel between the innermost ship and the south shore is wider than it is between the innermost ship and the other shore: I admit it is a peculiar circumstance, that the ships have been taken away from their moorings by other causes; I only say give me a clear channel for my ship. If they would condescend to put tier-ships into that tier these accidents would not occur. The fact is that the ground-tackle has such a power upon the body, that they cannot get released from their moorings. They have got to stand right into the northward, because the tide sets right across here. Will any man in his senses navigate across a tide when he wants to go up the river? When he arrives here, in order not to be thrown athwart-hawse, he has to bring her head round to the west-south-west. There are three angles which must be made for the purpose of gaining this passage. Now, will any man of common sense say, that if it be possible to avoid that, that that is not a better way of regulating the navigation of the river, and is it not the way in which it should be done? I say, that at present there is such a manifest obstruction to the navigation of the river, that to any landsmen even it is apparent. Now, with regard to the ebb-tide, you will see the effect of it there, because one of the greatest obstructions to the navigation of the river is these two tiers, which overlap one another. What I mean is, that they cannot have a straight channel, in consequence of that, but they must have this angle. If I come down the channel here, I cannot get into it, because this tier overlaps that; the consequence is, that here is not a channel for any vessel to pass through, and it is dependent upon circumstances and the weather whether they can get through that particular part of the channel. Now the ebb-tide, as I before observed, sets directly upon the north shore. The effect of these tiers was to operate completely as a gate to the King's highway, driving a person coming through here into a very narrow channel. All the extent to which my new proposal goes is merely with reference to these five tiers: I only propose to bring over from the north shore to the south shore these tiers, in order that they may be laid in a better manner; that is the whole point in difference between the St. Katharine Dock Company's proposition and the decision of the bye-laws. As far as respects the question of these five tiers, therefore, I beg leave respectfully to say, that there are no practical men upon the river, unless you can satisfy them that there is no other mode of mooring these vessels than leaving them where they are, but will all assent to the expediency of mooring them to the south shore. I do not mean to say that there are no objections to this, because there is no earthly proposition that can be made now-a-days without an objection; but I am sure that if there is any proposition which should appear to be diametrically opposed to this, it is one in its nature which would inflict damage to the local parties. As far as the plan goes, it provides for 207 ships instead of 170 ships, which is a great object gained. Now, gentlemen, it is right I should call to your recollection the coal-trade, the South Shields trade, the South Shields ship-owners, the Society of Ship-owners, and all those who have great interests at stake. All of them have told you, upon former investigations, that if they could only have accommodation for 200 ships it is all they ask: now this gives them 207. The harbour-masters consider that accommodation for 170 ships is sufficient. Now, if I can satisfy you that 207 ships can be laid down instead of 170, I think I shall go a great way to show you that this measure is expedient. It is not because this plan has not been laid before you at a former period,—it is not because this suggestion has not been entertained before, that you will not admit it now: I am perfectly sure that you will not determine this question without hearing other parties. I will circulate a number of these plans. I had got 50 copies of the plan printed, when an accident happened to the lithographic stone; but I shall have a larger supply to-morrow, and it is my intention to call the attention of the parties to the plan, in order that those parties may come fairly prepared to state their objections to it, and that those objections may be fully considered. I do not ask you to adopt these plans, I only wish to submit them to you; but I do say, having given a great deal of personal attention to this subject, that it is your duty to investigate it, and not to decide hastily upon it.

Now, gentlemen, having disposed of Plan A, that is, I hope I have now disposed of any objections to it, I will now call your attention to the other plan; always requesting you to recollect that this plan, which I object to, does not necessarily involve the circumstance that you are obliged to adopt the one I propose. Because, unless you are satisfied that one plan is preferable to the other, and not only that, but practically within your means as to expense, as I hope I shall be able so show you, why then undoubtedly, this being an important public measure, it would be for the committee to consider whether the amount of public benefit to be derived would justify you in incurring the expense which would be

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incurred from adopting a plan of this description in opposition to the other. My attention has been more particularly drawn to the laying down of these ships in the manner here suggested, from a conversation a short time ago with two practical pilots of the port of London, named Walker and Pickering, who, I believe, are well known to the harbour-masters and others connected with the port of London. I was surprised to hear that these views on the subject of mooring the ships had been before entertained; that these gentlemen had prepared plans to illustrate those views; that those plans had been submitted to the Admiralty, and that Sir Joseph Yorke and Sir George Cockburn had referred them to the city. I was further informed that they delivered these plans to the harbour-masters, and had applied to the harbour-masters at various times to get them back again, but had never been able; the answer having been, that the London Dock Company had got them. —A *Member.* No; that is not the fact.—Sir *John Hall.* I will bring the parties to prove it: it is stated that the plans have been delivered to the London Dock Company, and the answer they give is, that they cannot be found. Now, I appear to object to that plan of the London Dock Company, and the London Dock Company object to the plan which I have ventured to propose, the dock-masters having signed a representation of the necessity of keeping the ships in that part of the channel where the tide sets the strongest. Now, I say I have some little right to suspect, into whosoever hands they have fallen, that they have been kept back by design. It is unfortunate for Messrs. Walker and Pickering, the two pilots, who had been at great pains four years ago to lay down what in their judgment ought to have been the plan of the river, that their plans unfortunately, after passing through the harbour-masters' hands, cannot be produced. I should say, if the harbour-masters had thought it right to have laid them before the port committee, it would have been as well. Any suggestion on their part, however they may be practical men, must be liable to error, the same as any suggestion of mine or any other persons. I have laid before you this plan, which I venture to call an improved plan. This plan proposes to bring over from the north shore to the south shore the five tiers of vessels which you have seen delineated on the former plan; and by bringing them over to this shore you will perceive the advantages the navigation will derive, and which I will take the liberty of pointing out. In the first place, you get accommodation for more ships; I am aware it may be said, that the greater the number of ships the greater the quantity of space occupied, and, therefore, by so much it excludes the passage; but the fact is, that there is a shore that runs out at Limekiln Dock, and the accommodation that will be given does not narrow the channel. I know, in the present state of circumstances, there might be an objection, but I shall be prepared to remove that objection before I have finished. The plan I propose presents to you accommodation for 207 ships as compared with 170, which the port of London committee have recommended to the common council to determine upon. I have not disturbed this tier, with the exception of diminishing the number of vessels; I have only put 14 here, because when you come to look at the nearest point, which is here, and which ought to be removed, and which could be removed at an expense of 100 *l.*; that is, the point opposite King Edward's stairs; (it was necessary to provide for that, because I should have been met by the objection, "What, you who are an advocate for a navigable channel of 300 feet, why you have not left 300 feet!") it was necessary that this should be done by the shore being kept in order by excavations or dredging. With respect to the removal of the tiers from the north shore to the south shore, I beg leave to say, and I declare to you most solemnly that I conscientiously have endeavoured to find out some real solid objection to the system, and I have failed in that object. I shall show it will not interfere with the entrance to the London Docks. These ships being brought over from the north shore to the south shore has this advantage in the first place; I have laid it down at 25 feet, at proper and unobjectionable distances; but you will observe that these ships, by being brought over from the north shore to the south shore, at once remove the radical objection that every practical man connected with the river has constantly been urging, namely, that you drive them off the natural channel, both up and down, and you drive them into slack water and eddies. Now, no man will say it is not desirable to remove ships out of the navigable channel and place them in slack water; that will be the consequence of this, and you will also get rid of the intricacies of a crowded channel, and other difficulties. You will find upon this plan, that there is in no instance less than 350 feet allowed for the accommodation in some places, and there is a greater space in other places. I ask you, then, if I have satisfied you that such a channel can be kept, with regard to the general interests of trade, and also with regard to the interests of the colliers; for let it be distinctly understood that I would not advocate any plans which would have the effect of injuring the interests of any body. The other advantage gained by this plan is, that by bringing these ships over into slack water from the north shore, you leave an uninterrupted open space for the passage-boats to go up and down with passengers, thereby avoiding those frequent and unfortunate collisions which are daily occurring, accompanied with loss of life. If this channel had been arranged in the manner laid down here, when that accident happened the other day, those unfortunate persons' lives would have been saved; because the boatman would have kept the slack in-shore going up, and the ship would have kept the outside, which would interrupt no one; so that, if a boat were coming down, and persons were in it, upon the flood, the boatman would keep the in-shore; and if upon the ebb, he would also keep the in-shore. You would also have another advantage, that persons in these boats would not be subject to the same risks as they are now subject to from the swell of the steam-boats. I wish to provide as much as possible, and I am sure you will go hand in hand with me in endeavouring to provide against the inconvenience and accidents likely to occur. By these tiers being placed in this manner, they will break

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the swell, and the watermen will have the opportunity, in the course of time, of improving their boats. As far as the navigation of this part of the river is concerned, I venture to say, that for the purpose of ships passing up and down, it is perfectly impossible for any man to offer the slightest objection.

I have now to offer to the consideration of the committee another improvement, which is undoubtedly my own, although I claim no credit for it, because I admit that the conversation I had with Messrs. Pickering and Walker has led me in some measure to it. I propose to lay down, at certain distances, six tiers; that is, six mooring craft. Upon that subject it is necessary I should explain the great advantages of those mooring craft. In the first place it is a line for the eye, that colliers coming up may know they are not to moor beyond these. In the next place, that which now forms one of the principal obstructions in the navigation, namely, a collier coming up dropping her anchor into the stream, will now be removed; because not only can colliers come to this mooring craft, but there will be no necessity for dropping the anchor at all. On the other hand, to any ship coming up when it is blowing hard, this mooring craft will be an accommodation. It may be said you would get to the bight, and you would never get out again. How do you do at Blackwall? there are no colliers at Blackwall, but there are several things that would be better removed; I mean a certain hulk that lies at Brunswick-hole; it is lying there now, and I say it is a great obstruction to the navigation of the river. I am merely stating this by way of comparison with the navigation at Blackwall. I mean to deny that in that strength of current there is any danger of a ship being subject to the inconvenience of getting ashore. It is the greatest security that can be conceived to the navigation: I will tell you why. I have seen ships in the Pool drop ashore that have carried out a rope for the purpose of heaving off; every man knows you have no right to make a rope fast to the tier without the man's consent; the moment these gentlemen do that, they say, "Jack, get the axe," and the moment she is made fast, up jumps Jack with the axe and cuts the rope. Now that inconvenience is removed entirely by this mooring craft, because this will be laid down under the regulation of the bye-laws, and no man will venture to cut a rope which is made fast to the mooring craft. In addition to that, every collier will have the benefit of the mooring craft, so that he would be ready at all times in going in and coming out. As far as regards another point, affecting Limekiln-dock point, because the one affects the other, I beg to call your attention to that, undoubtedly, which might be offered as an objection; I do not say it is a substantial objection, namely, as to how far it can be carried into effect. I may be told, "You say 300 feet is necessary for a channel for the ships to navigate in, why, you have given only 50 here:" my reason is this; I am satisfied that, by means which are in your power, you can if you please keep a deep channel between the ships and the shore-mark, more than there is at present, if necessary; and I hope it will be done, when you see that so great a portion of the River Thames will thereby be rendered perfectly navigable. The answer I know will be, that as to the regular shoals, we have not the means of removing them. I am also aware that there may be a difference of opinion with regard to the legality of it, because, by the alteration that has taken place in the laws respecting money, it might have been done when you had 45,000 *l.* in your hands; I did urge it then, and I was told that none of the money could be applied for the purpose of removing mud-banks and shoals, taking them distinctly. In a legal point of view, I may be told, and I think justly told, that I have no means of removing this; but, gentlemen, if you approve of the principle of this plan, it will then be for you to consider whether it can be practically carried into effect with regard to the south shore: I am prepared to satisfy you it can. But before I do that, I ought to say you have had a memorial read to you today from the London Dock Company objecting to this removal, but upon what grounds I cannot understand, because you will observe I have preserved their manor to them; the *radius* of 600 feet has been preserved; it is necessary to have 1,200 feet lineal; there are three entrances, which would make no less than 3,600 feet. I never heard any man so irrational as to say, because Parliament have thought right to give the dock-masters that augmentation, that, therefore, nothing is to pass across that 600 feet *radius*. The intention of Parliament is only this, that no obstruction shall be created to the entrance. There is not a day but 100 ships pass into the dock, and we are bound to give them an opportunity of doing so. I mean to say that, as far as any question can be raised with respect to impediment or obstruction in the London Dock entrances, I would be the last man in the world to advocate any measure that should directly or indirectly affect them. It will not affect them. You have the width of 500 feet to the ship, and 600 feet from the buoy, and that is quite enough. There is not more than 14 or 15 feet water at that buoy, and therefore no captain of a ship of any magnitude would think of remaining there in that prominent position. Now I will travel over to the Surrey Canal. They have, by Act of Parliament, 300 feet, and they are content with that. Captain Smith, in the handsomest manner, told the port committee two years ago, "Gentlemen, we are not nice about our 300 feet, give us a fair and proper means of access, and we shall be satisfied." But when they state they are not very nice about claiming the privilege of 300 feet, I am prepared to shew you they have not got 300 feet from the innermost shore there; the tier is in the same position, and I have not disturbed it; you will find the innermost shore lies in near to the Surrey Canal now, but rather further off than the present tier; at all events, there is no difficulty about that, because the whole question would turn upon a couple of ships which might be moored from the inner part of that tier. As far as regards the Regent's Canal I need not say a word, because there is no petition from them. I am not aware that there is any Act of Parliament giving them any *radius* on the River Thames; at any rate, this will not interfere with it if there is, because it gives more room. Now, gentlemen, I am coming to the

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important part which in a great measure will influence your judgment as to the practicability of carrying this plan into effect, that is, to the depth of water in-shore, between these ships and the south shore. I do not imagine that any difficulty will exist in the minds of the port committee when they are in possession of my views. The depths of the water in various parts here are just the same as at other parts, and for the same reason I admit that ships cannot lie so close as in the other tiers. I will state how I propose to remove the difficulty, under the authority of the Act of the 3 & 4 Will. 4, as far as I recollect; it is the 4 & 5 Will. 4, c. 52, and that is an Act which I am very tender with, because it has been my fate, as far as regards the trade and navigation of the port of London, to be a great deal connected with these subjects of inquiry. The amount of the annual expenditure settled for the port of London is about 6,500 *l.* a year. The amount I estimated, and I shall be very much mistaken if I am not right, was, that the diminished rate which is thus collected under the altered Act, will give you annually at least 10,500 *l.*; so that you will have a surplus of between 4,000 *l.* and 5,000 *l.* to be diverted to the purpose of the improvement of the port, strictly within the words of the Act of Parliament, not I admit to remove shoals and mud-banks, but for deepening the water. I will point out, whatever may be the objection to the water on this shore, the means by which it can be done. I have not had proper surveys made, but I have no doubt that from 5,000 *l.* to 6,000 *l.* or 7,000 *l.* would dredge all the water that would be necessary to clear away the mud from this side. You will have this advantage, that the ships that are brought over from the north shore; with regard to the scouring of the river, I am prepared to show, that if you move those five tiers from the north shore to the south shore, you will have just as much water on the north shore afterwards as you have now; and for this reason, because the bed of the river is the part presented to the stream of the current, and the strong set of the current is such as to keep that part clear; whereas you have here nothing but the eddies from the slack water. Do not be misled by any suggestion that the solid bed of the river is to be injured, because it is not so. Look at what it was formerly, compared with what it is now, and you will find that there is less water now than there was at that period. Then what becomes of the statement, that by the ships lying in those tiers you get a greater quantity of water in depth? I admit if there were any mud likely to accumulate there it would be carried off. Therefore, these ships being laid down here would operate as natural dredgers without expense; in a short time all the mud would be carried away by the ships being moored in this place; and, therefore, you would have more than sufficient to assist the dredging. With respect to the question of mooring, a very considerable error prevails with a gentleman who addressed me the last time I was speaking about the question relative to the mooring, as if, really, I had proposed the same mooring that was laid down before. The fact is, that the plan I submitted to the committee for laying down moorings was a different plan altogether. The plan I submitted to them was, a plan for laying ships with bridles and buoys and chains all across the river. Now the plan I propose is this—suffice it to say, the plan I alluded to then was of a different description, that is the plan of the bridles: I am going to explain. The plan is this: I recommend that stones should be laid down, mooring-stones; what I call bridles, is the bridle from stone to stone; the objection to the plan I formerly put in, and which I admit there was an objection to (and I hope whenever that is the case I shall always be frank enough to admit it), the objection was this, because the chains that were affixed to them laid right across the river. Now that is a radical objection; but here, in this plan, there is no such objection. The plan is this, that you shall have moorings laid down here, as you have above the Pool; you should lay down a couple of good moorings for the tier; when, in the first place, you would have this advantage, that you keep the ships in berth, they would remain in their places, and they would not be influenced by the set of the current; they would remain stationary in their places; and a wonderful advantage it would be to the colliers, for they would save the expense of all their ground-tackle; and, therefore, as far as regards the question of valuation, it does appear to me that it would be a very desirable thing. You have under the Act of Parliament sufficient means of doing so. I do not mean to say that you may not be obliged to apply to Government for permission to collect the rate; but you will have no difficulty in getting it advanced (as Government are so deeply interested in it) from the Consolidated Fund.

Now, I believe I have explained the effect of these different plans before you. As far as regards the question of contracting the main channel, I do hope and trust, as a practical man, that that will not take place. One of the strongest reasons against it is the accidents that will inevitably occur in the river from the consequence of narrowing the channel. I speak practically. I know what the effect of coming into a narrow channel is. I have been swamped, and I have hung on; that is not the fault of the steam-boats. It will be your fault if you contract the channel. I do not know whether I am correct, but I understand that the port committee recommended 300 feet, and the practical officers recommended 200 feet: I suppose you have settled this by a compromise at 250 feet. Gentlemen, I entreat you to bestow your deliberate attention to the effect of diminishing the channel of the river for navigable purposes; I entreat you to consider what the effect of it will be; ships huddling together, and crowding many together in the passage of the river; all these different vessels, and the craft, and the boats, and the ships; because all the ships that have to pass Limehouse-hole have to pass that point both in coming up and going down, and therefore the least obstruction is important here, which I am glad to see the present bye-laws will correct. I shall be glad to show where improvements may be made in the bye-laws: ships lie down here constantly at single anchor, and that forms a means of obstruction to the channel. I do say you will avoid the greater part of that altogether by the

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the regulation in your bye-laws. There are some points in the bye-laws to which I beg leave to bear my testimony of approval, particularly that of giving greater powers to the harbour-masters. I know it has been said, and I have said, I will make no more representations to the port committee, until I see what it is their intention to do by the bye-laws. I know that if the question of 300 feet had not been broached, it would have afforded an opportunity of trying something else; but by adhering to the 300 feet in this plan you will materially benefit the navigation; if this plan should be found to be such that you cannot approve of the diminishing a few ships in other places, still you may modify it; but this plan presents so many advantages, that I hope and trust you will be of opinion it is deserving of your consideration, and you will entertain it. However, I would take leave to mention the course I would pursue, with your approbation, and which I hope you will consent to. I apprehend it is of no use calling your attention to the examination of witnesses to-day; but I am here, and ready to be cross-examined at this time. Unless you are satisfied upon the result of the investigation that the public will be benefited by the adoption of the plan, you may take the plan and throw it overboard, and then say you will adopt something else. Now, as far as to-day is concerned, subject to your approbation I am now ready, for any gentleman who is here, to present myself, after the statement I have made, for cross examination. If you find it more convenient to delay my examination, although it will put me certainly upon a more favourable footing, yet I feel so strong upon the plans, that I care not. I am prepared to be examined now, or I am prepared to take this course, which, perhaps, will be the more regular course. I shall certainly have to produce to the committee various witnesses in support of this plan, and perhaps other witnesses pointing out objections to the other. Another reason why I am not prepared to go into evidence to-day is, in consequence of the accident which occurred in the printing of the plans; but to-morrow I shall begin to circulate them, and send them to all the ship-owners and other parties who are interested in this question. If the plan is worth anything you will say so; if not, you will reject it altogether: I shall be at your service any day next week except Thursday. I propose to bring before you evidence in support of the objection to the diminution of the navigation from 300 to 250 feet. In the next place, I shall bring evidence as to the colliers, and it will then be for you to judge. I am now prepared to be cross-examined, or the cross-examination may be proceeded with after I have finished my case, and after bringing forward the evidence in support of the case I have ventured to present to you. I cannot help thinking, under correction, that there might be some advantage in that course. I cannot help knowing that there is a complete misconception as to the facts about the St. Katharine Dock Company; they think that we are going to disturb the arrangement of the ships all the way up; now that is not the fact; it is a mere removal of the five tiers there.

1152. *Chairman.* You mean to turn those five tiers into about ten. Are you aware of the shallow water? Have you calculated the water?—Sir *John Hall.* I have no question that from four to five would go a great way to deepen the water there. A very important point, which I omitted, just strikes me in consequence of that observation. You are aware that there are a certain number of dry docks on the south side of the river; there is Lavender dock, King-and-Queen dock, Bull-head dock, and other docks; these docks undoubtedly ought not to be at all interrupted or interfered with: provision has been made for an entrance to all these dry docks. On the other hand, you have this advantage, that the obstruction which now exists in the narrow channel, from docking ships on the south side of the river, will be done away with, because it will be an in-shore channel, and they will not be interrupted, as they are now, by ships docking in and out of the dry dock. You cannot deprive these parties of their dry docks; they are entitled to them; but bringing the ships from the north shore to the south shore will at once remove that impediment: that is a great advantage. But there is another point: you will recollect that there are parties here who claim a right which is questioned, but which I do not propose to disturb; they claim a right of laying large East Indiamen along the shore to break them up. Now, there will be plenty of room in the in-shore channel, and there is nothing to prevent them, because there are no lighters or any craft there connected with the general transit of the river; and then you would have nothing but the small boats, and that would be an additional advantage, and you would have the opportunity of the dry docks without interrupting the navigation, all of which would assist the navigation of the smaller boats up the river to that extent. I think that some of these parties are lying under a mistake. I took down the names of some of the parties. I am told that that is signed by all the wharfingers.

1153. *A Member.* It is not so?—Sir *John Hall.* I am prepared to tell you that some have changed their opinions; every man has a right to change his opinion. An honourable friend who sat here, the alderman, touched upon the dock-masters having signed a petition for that, which tells you that you ought not to diminish the channel, and which tells you it is desirable to remove the tiers from the places where the channel runs the strongest. I find that Mr. Watson——*A Member.* He has recalled that.

1154. Sir *John Hall.* I do not know how that is. I received a note from my friend, Mr. Hosie, to show the plans. When I found that Mr. Hosie had signed a petition, I sent him a copy of my petition, and I requested him to let me have a copy of his. I invited him to come and see my plans. I do not know the grounds upon which the parties have changed their opinions, whatever Mr. Watson may say. Mr. Harrison, Mr. Smith, the agent of the Dublin Steam-packet Company, Beale's Wharf, and Brandon's Wharf, and also the Shipping Company, and all parties who signed the recommendation not to diminish the 300 feet, and also pointing out and concurring in the recommendation made of not mooring ships. I am the more anxious not to delay, but in order to give them an

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opportunity of knowing what the real state of things is, it is perhaps better to defer this for the present. There is nothing which I have ventured to submit to your consideration that is not substantially upon public grounds. As far as regards the two plans, I am quite ready to undergo a cross-examination, or to attend at any other time for that purpose. But I think the more correct course would be to allow me to close my case; I will promise that I will not carry it beyond one other meeting. I would direct your attention to the examination of the pilots and experienced men, and I am sure you will not reject their testimony. All we ask is, that we may be at liberty to give you an opportunity of coming to a deliberate determination upon it. I can attend any other day, with the exception of Thursday, when I shall be ready to present myself to your notice, and close the case.

The following document was then put in by Sir John Hall, and read, as follows:

1155. Leading Evidence of Sir John Hall, K.C.H., upon the comparative Plans of the River.

Plan A.

The objections to the regulations respecting the number and manner of mooring the colliers in the Lower Pool are various. The tiers are now moored on the north side of the Lower Pool, between Shadwell and the Regent's Canal entrance, in a part of the river where the flood and ebb-tide sets the strongest, ships passing up and down are thus deprived of the advantage of the natural stream. The whole of the shipping, steam-boats, and craft frequenting docks, wharfs, tiers, moorings, and other places above Limehouse-hole, both in coming up and going down, in consequence of the tiers so moored extending across the river, and seldom leaving a navigable space in the width at low water between the outermost ship and the south shore of more than 100 to 200 feet (although a passage of not less than 300 feet in width is required to be kept by law), have no other means of approach, or of egress, than by such a contracted and crowded channel, which neither affords security, suitable or sufficient accommodation for the transit of shipping. The difficulty of navigating such a channel is obvious, and further increased by the effect of slack water, the water-way being influenced by eddies, and no sufficient room left for a ship of any size to swing (if put by or compelled to let go her anchor), to avoid running ashore, or prevent her doing injury by running foul of other ships. The flood-tide sets in directly to Duke's Shore and Regent's Canal entrance, and consequently carries ships bodily over to the north side of the river, where they encounter the lower Ratcliffe-cross tier, which is moored across the stream, and from which it is frequently impossible to extricate them, and as a consequence ships are driven athwart-hawse. Such an intricate species of navigation at acute angles, and opposed to the natural set of the current, is subject to great risks, and ships, when under canvas, and the wind between N.N.W. and S.S.W., the prevailing winds about nine months in each year, are compelled to drop up athwart the tide, thus creating additional, but under the circumstances unavoidable obstruction, and of a more lengthened duration from the slack water, and exposed to the inconvenience of eddies; whilst the passage is further impeded by ships lying at single anchor at the entrance to the Pool, some of which discharging or taking in ballast, and others stopping tide. Ships breaking up along the south shore in so narrow a passage, together with the docking and undocking of ships at the several dry docks between Pageant's and the Surrey Canal entrance, all contribute to narrow the channel. Another important objection to the arrangement is, that from the excessive number of ships moored in Cole-stairs tier, and in Mill-hole lower tier, the "overlap" and upward-bound ships after passing Globe-stairs are compelled to stand over to the northward, directly across the set of the tide, and then (when they can) suddenly alter their course to south-west, thus being subjected to additional acute angles; whereas the channel for navigation ought as near as practicable to be kept parallel with the bend of the river and with the set of the tide. From a want of proper attention the width of the in-shore passage at Mill-hole at times exceeds even that of the navigable channel to the northward, while such channel between the outermost ships at Mill-hole tiers has been at times so narrow, that craft drawing about five feet water could not pass, and this at periods when not a single ship has been moored in upper Hanover-hole or Church-stairs tiers. Upon an ebb-tide the difficulty of entering and navigating the Lower Pool is also great, as the current sets directly over to the north shore at Shadwell, and carries a ship bodily out of her course; the five tiers in the Lower Pool form a complete obstruction to the natural passage downward, as ships approaching Mill-hole tier, which overlaps Coal-stairs tier, are compelled to stand well over to the southward to gain the navigable channel, which they frequently cannot accomplish without bringing up and warping over to the south shore. If the five tiers in question were removed and properly placed along the south shore, the difficulties referred to would be principally removed, and great advantages obtained, as will appear from the accompanying plan marked B, recommending an improved arrangement.

Plan B.

The important and decided advantages appertaining to this plan will be manifest upon inspection. By the proposed arrangement in the mooring of colliers in the Lower Pool, not only will superior accommodation be afforded, and wear and tear to shipping diminished, but convenient room will be found for 37 more colliers than are provided for by Plan A., whilst they will derive the benefit of being moored in slack water, and an unobstructed channel provided for general navigation of from 320 to 500 feet in width, between the outermost ships and the north shore, with a convenient and safe in-shore passage for boats, &c. The space of occupation allowed for each ship in every tier has been computed at the

rate

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rate of 25 feet in width. The natural and important advantages of the aid of the stream in the transit of shipping will be secured, and the intricacy, acute angles, crossing the tide, and present risk in the navigation of the Lower Pool avoided. The stationing of six mooring craft in the position delineated will afford the following important benefits:—

Colliers need not drop their anchors or bring up in the stream, and will not, therefore, obstruct the channel, but may, upon arrival, make a rope fast to the mooring craft, and sheer in at once to the tier where they propose to moor. By this arrangement much impediment to the navigation will be avoided, besides the saving in wear and tear in ground-tackle. The advantage also of the mooring craft will be important to other ships passing up and down, as they will likewise have the use of them to run a rope out as occasion may require, without the risk of having it cut at a critical juncture, a practice not unknown in the Pool, by which the safety of many a ship and cargo has been endangered. Proper moorings, secured by stones sunk in the bed of the river, are proposed to be laid down for the accommodation of each tier, which will keep the ships in their berths, and prevent encroachment on the navigable channel; posts to be erected at intervals on the south bank, with the particulars of the tiers described thereon, and number of ships allowed to lie in each, and a proper depth of water dredged in-shore.

The ships being moored on the south shore will also assist in deepening the river in that part by clearing away the mud, whilst the strength of the current on the north shore is of itself sufficient to scour the bed of the river in the principal channel, or should this be questioned, dredging may occasionally be resorted to. A surplus of from 4,000*l.* to 5,000*l.* a-year, under the 4 & 5 Will. 4, c. 32, it is estimated will be at the disposal of the Port of London Committee, which may be applied to deepening the water for the accommodation of ships in the proposed tiers, and for any other purposes of improvement connected with the mooring of shipping, and laying down moorings. A sufficient and safe in-shore channel will be provided on the south shore for the passage of boats with passengers or otherwise, and thus afford essential protection from the swell produced by steam-boats, and perfect security against collision with them, or with ships and craft in the Lower Pool, where the greater number of accidents and loss of life have occurred, as the steamers and ships will navigate the north shore, and keep in a separate channel. Less interruption will be also experienced by shipping in their transit, as the docking and undocking of ships on the south shore, which is more frequent than on the north shore, will not interfere with the navigation, whilst sufficient approach has been provided to the dry docks. Neither will it in such case be necessary to interfere with the practice of breaking up ships on the south shore, as a sufficient space alongside the wharfs will remain for that purpose.

It is to be observed that the plan does not contemplate any alteration in the river above the Surrey Canal entrance, except that between such entrance and Church-stairs fewer ships are proposed to be placed in each tier, without diminishing, however, the total number of colliers to be accommodated, which by this plan is 207, as compared with 170, the number provided for by the plan of the port committee; neither will it interfere with the limits of the London Dock entrance, which are 1,200 feet lineal, nor is any alteration intended which will affect the Regent's Canal or Grand Surrey Canal entrances; the latter, indeed, will be improved by the mooring craft at the extremity of Bull-head dock tier, by which ships may be sheered in at once to the lock entrance: and finally, it is indispensable for the convenient navigation of the river, and security of the lives of his Majesty's subjects and of property, that a channel of not less than 300 feet, as now by law established, should be scrupulously kept, and which can be maintained without difficulty, and with a just regard to the general trade of the port, an unobstructed channel, which should form the fundamental principle of the harbour regulations, and be the primary consideration, whilst the mooring and placing of the ships ought to be subsidiary, and the arrangements contingent. The numerous accidents now almost of daily occurrence, some attended with the lamentable loss of life, and others with injury to property, and which are attributable in a principal degree to the narrow and crowded state of the channel set apart for the passage and transit of ships, steam-boats, craft, boats, &c. especially through the Pools, aggravated by the regulations of the port not being enforced, and by the injudicious mooring of ships, and the want of a more effective execution of the duties of the harbour-service, offer irresistible claims upon the attention of the Port of London Committee, and create a serious responsibility. It is, indeed, matter of surprise, and of deep regret, that, under such circumstances, the port committee should have been persuaded to entertain a proposition for diminishing the channel of 300 feet in width (now required to be kept by law), as any reduction in the width must inevitably tend to increase the difficulties, confusion, and risk, place at hazard the lives of His Majesty's subjects, and operate to the injury of the trade and navigation of the port.

The following letter, addressed to Sir John Hall by Captain Fisher, and an account of the measurement, &c. of the vessels, were put in by Sir John Hall, and read as follows:

1156. Dear Sir,—I should have sent you the account of the vessels allowed at the wharfs, &c. before, but unfortunately the book with the measurements of the different premises on the banks of the Thames is at Greenwich; but it will be up to-day, when you shall have the required information: 25 feet is allowed for the average breadth of a collier in the collier tiers.

I am, dear Sir, yours truly,
John Fisher.

Sir J. Hall.

1157. Result

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1157. Result of the Examination of Collier Tiers in the Pool:

	DIFFERENT TIERS.	Number of Feet.	Total Breadth of each Tier.	Average Breadth of each Vessel.	Number of Vessels in each Tier.
	Hanover-hole upper tier				17
10	Vessels measured together	230			
7	Ditto - remaining average	161			
17	Vessels.		391 feet	23 feet each	
	Hanover-hole middle tier				20
12	Vessels measured together	270			
8	Ditto - remaining average	180			
20	Vessels.		450 feet	22 ft. 6 in.	
	Lower tier and Mill-hole				17
14	Vessels measured together	350			
3	Ditto - remaining average	75			
17	Vessels.		425 feet	25 ft. —	
	54 Vessels		1,266 feet	23 ft. 5 in.	54
	Cole-stairs tier				18
14	Vessels measured together	360			
4	Ditto - remaining average	102			
18	Vessels.		462 feet	25 ft. 8 in.	
	Bell-wharf tier				24
8	Vessels measured together	210			
16	Ditto - remaining average	420			
24	Vessels.		630 feet	26 ft. 3 in.	
	Stone-stairs tier				25
14	Vessels measured together	350			
11	Ditto - remaining average	275			
25	Vessels.		625 feet	25 ft. —	
	Ratcliffe-cross upper tier				20
14	Vessels measured together	345			
6	Ditto - remaining average	148			
20	Vessels.		493 feet	24 ft. 8 in.	
	Ratcliffe-cross lower tier				13
12	Vessels measured together	300			
1	Ditto - remaining average	25			
13	Vessels.		325 feet	25 ft. —	
	TOTAL, Lower Pool, 100 vessels		2,535 feet	25 ft. 4 in.	100

In Hanover-hole and Mill-hole, 3 tiers - 54 vessels - 1,266 ft. - average 23 ft. 5 in. each.
Lower Pool - - - - - 5 tiers 100 vessels - 2,535 ft. - average 25 ft. 4 in. each.

Total - 154 vessels in 8 tiers - 3,801 ft. - average 24 ft. 8 in. each.

(signed) *J. Hall.*

1158. Sir *Chapman Marshall.* Sir John Hall, I took the liberty of noticing, as you went along, the statement you made with respect to the plan marked A. You have stated that the harbour-masters have allowed only 40 feet in-shore.—Sir *John Hall.* I presume so. I have never seen their plan; the bye-law says so, but they have altered the bye-law now.

1159. Sir *Chapman Marshall.* Your proposition, I believe, is, that 100 feet is necessary, is it not?—Sir *John Hall.* Yes; I not only consider that 100 feet is necessary, but I have a right to say that the harbour-masters consider so too, because they have admitted it in the committee by repealing the bye-law.

1160. Sir *Chapman Marshall.* I should like to ascertain the opinion of the harbour-masters upon that point.

1161. Captain

1161. Captain *Fisher*. I am ready to answer any question.

1162. Sir *Chapman Marshall*. You have heard what Sir John Hall has stated; do you agree to that?—Captain *Fisher*. Forty feet is what is allowed by the bye-laws, but we are glad if we can get 30 feet when vessels are going out; but 40 feet is the standard that is allowed.

1163. Sir *John Hall*. Which you have recommended the committee to repeal?—Captain *Fisher*. No, I have not recommended them to repeal it.

1164. Sir *John Hall*. Will you allow me to ask, you have now soundings upon these plans, which Captain Fisher, as a practical man, knows are two feet less of water than are marked.

1165. Sir *Chapman Marshall*. I want to ask the harbour-master whether he agrees with you that 100 feet is necessary in-shore, as these tiers are at present placed?

1166. Captain *Fisher*. I think that 100 feet is not at all necessary, and I think it would be taking away from the accommodation of the shipping if it were allowed. Forty feet is quite sufficient for the purpose of allowing craft to go backwards and forwards.

1167. Sir *John Hall*. I have allowed 100 feet in the plan, but do not say they are necessary; I say it is the practical average width of the in-shore passage, north shore. Fifty feet upon the south shore is what I have allowed. Will Captain Fisher have the kindness to inform the committee what depth of water there is at low water, within 30 feet of low water-mark, on the north shore?

1168. Captain *Fisher*. It varies up and down on the north shore; it is a very rare thing to see a collier on the shore there.

1169. Sir *John Hall*. Will Captain Fisher do me the favour to tell me the depth?—Captain *Fisher*. It varies.

1170. Sir *John Hall*. Will Captain Fisher do me the favour just to come round and point out any distance within 100 feet almost of the shore where there is 12 feet water?—Captain *Fisher*. There is 100 feet [*measuring on the plan*]. It is between 11 and 13 feet; it is upon the average 13 feet, according to the Trinity standard, if you look at your plan.

1171. Mr. *Hale*. I propose to remove that. I do not quarrel about the number of feet. —*A Member*. You have made a statement that there is but nine feet; we are told now by Captain Fisher that there is an average of 12 feet.—Captain *Fisher*. Small vessels will go in very well in that draft of water.—*A Gentleman*. There is less water here when the colliers are taken away.

1172. Sir *John Hall*. You have got here the soundings of the depth of the river upon the chart. You have here upon the chart the actual depth represented by your own practical officers, and from which you must deduct two feet, because by the Trinity datum you have a rise, spring-tides, of four feet; and I now ask you to point out, with the exception of that place there, where you have, within 100 feet, a depth of 14 feet water at low-water along the north shore.

1173. Captain *Fisher*. I say it is from 11 to 12 feet, and that is sufficient, because there are small colliers there; a small collier will go in there, but the large colliers are generally kept out in deep water.

1174. Mr. Alderman *Venables*. Having the soundings there, when the gentlemen have come to a conclusion, I was going to make an inquiry of Sir John Hall.—Sir *Chapman Marshall*. Are the committee to understand from you, Captain Fisher, that you consider 40 feet in-shore is sufficient for the navigation?—Captain *Fisher*. It is quite sufficient; and I am quite certain the barge-owners will consider 30 feet sufficient.

1175. Sir *Chapman Marshall*. Sir John Hall says 100 feet is necessary.—Captain *Fisher*. It is impossible to allow it; we cannot spare that.—Sir *Chapman Marshall*. You say that 40 feet is enough for the in-shore navigation, and then there is an average of from 11 to 12 feet water. Sir John Hall says there is an average of two feet less; and the Trinity datum is given, which makes it from nine to ten feet deep; now if that is the case, do you consider that 40 feet width is then sufficient?—Captain *Fisher*. Quite so.—Sir *Chapman Marshall*. We have it in evidence that 100 feet is necessary.

1176. Sir *John Hall*. Excuse me, what I have said is this: for the purpose of showing you, gentlemen, what the practical effect is of placing these tiers in that part of the river, I have therefore, in laying down these tiers, allowed 100 feet between this and the bank of the river at low-water mark; but I do not say they are necessary. I have not gone the length of saying, that if you deepen the water there you will not get more room. I have offered evidence, and I am prepared to support it, that, take one day with another, that the average width is 100 feet in-shore. I know very few colliers that draw so little water as 12 feet, but take the average at the present width, between low-water mark and the tiers as they now lie, you will find that there is not less than 100 feet required to secure that depth at low water. For this reason, if you apply your minds to it, you will find that you must go 100 feet from the north shore low-water mark out into the river before you get to 14 feet depth of water.

1177. Mr. Alderman *Venables*. Practically it turns out, then, that 100 feet is necessary.—Captain *Fisher*. A number of small colliers are constructed with bottoms to take the shore; in fact in the north they lie ashore; they do not care about lying ashore: many of them with a good floor will take an inside berth in preference.—Sir *Chapman Marshall*. Sir John Hall says it makes a difference whether it takes places on the northern side or the southern side of the river.

1178. Sir *John Hall*. I mean to say that, unless you go to the expense of dredging in-shore on the north side, you must allow 100 feet as the practical in-shore width.—Sir

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Chapman Marshall. What is the practice now?—Sir *John Hall.* It is necessary to have 100 feet.

1179. Captain *Fisher.* Certainly not. I mean, practically, to say, that from my observation there is 40 feet from low-water mark, and it not only does not exceed 40 feet, but it is under 30 feet; 30 feet is the standard. I have seen ships lying in-shore at that distance when the wind had been blowing from the northward.

1180. Sir *John Hall.* They would not lie upon the north shore when the wind has been blowing from the northward.—Sir *Chapman Marshall.* It is very evident if they take that, that there cannot be sufficient room.—Sir *John Hall.* Let us have no mystification upon this subject. The whole question is as to the fact: the difference is 60 feet between Captain Fisher and myself; if you add that to the 60 feet difference in width of tiers, you have on the south shore 200 feet, but certainly not 300 feet.

1181. Mr. *Hale.* Sir John Hall has stated that there is but from nine to ten feet; Captain Fisher has stated to this committee that is 12 feet, and Sir John Hall charges some one or other with giving two feet more than there actually is. But, on the other hand, Captain Fisher states most distinctly that the number of feet is as there marked.—Mr. Alderman *Venables.* I wish to know where there are 12 feet marked.

1182. Captain *Fisher.* The 12 feet marked is upon an average tide; it is called the Trinity standard; it is between a spring and a neap; on very low spring tides it will make two feet nearly, but it is not so every day.—Mr. *Hale.* Sir John Hall takes the extreme point of the tide, the dead low water.

1183. Sir *John Hall.* I wish the honourable gentleman would not assume for me that which I have not stated. It is merely a question of what these soundings are, with reference to the Trinity *datum:* this is my proposition, that there are two feet less water than delineated in the plan;—the fact is, that is the mode in which the Trinity *datum* is to be considered. There is a rise every tide, in spring tides, of four feet, as compared with neap-tides—they divide the one with the other and take the mean; therefore, I say you must deduct from the soundings marked, which are the mean two feet.

1184. Mr. *Hale.* Is that the case?—Mr. *Rowland.* It is very nearly, but not quite.—Mr. *Hale.* How often is it that that proportion of the river, which is described as 40 feet width, is but 10 feet in depth?

1185. Sir *John Hall.* Any information which the member seeks upon the point so put will clearly be erroneous, and for this reason, because talking of the average depth is perfect nonsense; for instance, supposing I am told upon a neap tide, when the tide ebbs out two feet less than it does upon a spring tide, that there is 15 feet water, I come then upon a spring tide and find there is only 13 feet.

1186. Mr. *Horne.* With respect to mooring the colliers, we are likely to differ with Sir John Hall as to the measurement: I should be glad to ask him how he measures this, because he has given certain *data,* and we shall give contradictory evidence upon this subject; and therefore we wish to know his mode of measuring.

1187. Sir *John Hall.* It is taking a practical line from the innermost ship to the outermost ship, and then taking the length of that line.

1188. *Chairman.* Captain Fisher, did you measure the ships singly?

1189. Captain *Fisher.* We measured them singly.

1190. Mr. Alderman *Venables.* There is a difference between the statement of the average width of the colliers, as made by Sir John Hall and yourselves; and I think it of great importance that the committee should be informed how that discrepancy arises. Have you measured different ships, or has Sir John Hall taken the largest ships, and you the smaller ones? or does it arise from your measuring the ships in a different manner? If it does not arise from any of those circumstances, how does it arise?—Captain *Fisher.* We measured the ships at the Cole-stairs, but not the largest ships.—Mr. Alderman *Venables.* Sir John Hall gave an average of 25 feet 8 inches.—Captain *Fisher.* We measured them singly, each ship.—Mr. Alderman *Venables.* Are they coal tiers?—Captain *Fisher.* Yes, which we considered to be the largest.—Mr. Alderman *Venables.* Sir John Hall makes it 25 feet 8 inches.

1191. Sir *John Hall.* That is an average.—Mr. Alderman *Venables.* We will keep it to Cole-stairs tier, where Sir John Hall makes an average of 25 feet 8 inches for each vessel, and I think Captain Fisher makes it 17 feet.—Captain *Fisher.* I think 22 feet is the outside.

1192. Mr. *Holt.* Sir John Hall adds to each tier 15 feet for the width of a barge lying outside each tier; if you take that off, the difference will not be so great between him and Captain Fisher.—Sir *John Hall.* Outside every one of these tiers there is always a coal craft lying and discharging. I have included the allowance for the occupation of a coal craft lying outside, and fenders, &c., and casualties.

1193. Mr. Alderman *Venables.* Captain Fisher, what do you say if the 15 feet were added?

1194. Captain *Fisher.* No, I have given the outside.

The following document was read:

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1195. The Number of Vessels in Cole-stairs Tier on the 16th May 1835, with their Measurement and Keels.

	Measurement.	Keels.	Tonnage.
Phœnix - - - -	18 ft. 6 in.	16	—
Ann - - - - -	19 ft.	15	206
Penelope - - - -	15 ft.	10½	—
Itinerant - - - -	15 ft.	16	132
Argus - - - - -	17 ft.	16	—
Commerce - - - -	18 ft.	14	—
Peruvian - - - -	17 ft. 10 in.	16	—
Farmer - - - -	17 ft. 9 in.	14	—
Nautilus - - - -	15 ft. 6 in.	15	—
Mentor - - - -	19 ft. 6 in.	20	375
Sarah - - - - -	15 ft. 10 in.	14	—
Tyne - - - - -	18 ft. 3 in.	15	211
Swift - - - - -	16 ft. 6 in.	14	—
Jemima - - - -	17 ft. 8 in.	16	—
Jane Kay - - - -	17 ft. 5 in.	16	235
Margaret and Ann - -	16 ft. 9 in.	17	227
Buenos Ayres Packet - -	17 ft. 4 in.	14	187
	292 ft. 10 in.		

Two feet is allowed for the fenders of each ship: 17 feet average width.

1196. Sir *John Hall.* Will Captain Fisher allow me to ask how he has taken the measurement of these ships?

1197. Captain *Fisher.* They were taken from the quarters, at the extreme breadth of the quarter, the broadest quarter.

1198. Sir *John Hall.* Have you taken them from the channels?

1199. Captain *Fisher.* No, because it was not required; you only want 15 feet between; they lie quarter to quarter.

1200. Sir *John Hall.* If any gentleman will refer to the Navigation Register Law of Customs, he will find there is not a single ship, from 367 tons to 228 tons, of less width than 25 feet; and I have got the register width of no less than 50 ships named directly from the Customs, all under 270 tons register; and there is not one that is under 25 feet in width.

1201. Mr. Alderman *Venables.* Captain Fisher, you hear the conflicting difference.

1202. Captain *Fisher.* The width of a ship should always be taken at the stern, and therefore the proper way is to stretch a line from the stern of the innermost ship to the stern of the outermost.—*Chairman.* Did it never strike you to take it in that way, from stern to stern; from the stern of the inner ship to the stern of the outer ship?—Captain *Fisher.* Certainly.—Mr. Alderman *Venables.* Is the inference that Sir John Hall draws correct, that the harbour-master has not measured it across the widest part.—A *Member.* There is no occasion to do it.—*Chairman.* I understand that Captain Fisher has taken it so.—Captain *Fisher.* I have taken from the widest part of the quarter.

1203. Mr. Alderman *Venables.* I think there are three sources of expense in your plan, Sir John Hall: one, the mooring-craft; the other, the scouring of the south shore, and dredging it, which you estimate 5,000 *l.* or 6,000 *l.*?—Sir *John Hall.* No; the receipts per annum.

1204. Mr. Alderman *Venables.* You stated 5,000 *l.* or 6,000 *l.* for dredging the south shore you thought would be sufficient; that is the second item; the other is, laying down the moorings. What do you suppose will be the expense of those three items?—Sir *John Hall.* You will please to recollect that the removal of the tiers from the north shore to the south shore does not necessarily involve the expense of laying down these moorings.

1205. Mr. Alderman *Venables.* Will you have the goodness to answer the question?—Sir *John Hall.* It does not necessarily follow because you move the tiers over here, that therefore you should have new moorings. The expense of the mooring-craft; I will tell you what I think the expense of the mooring-craft would be, it would be about 300 *l.* each, that would be 1,800 *l.* With regard to the mooring by stones, I am not competent to give an opinion.

1206. Mr. Alderman *Venables.* Did you not say 15,000 *l.*?—Sir *John Hall.* I said, provided the expense of mooring and dredging were 15,000 *l.*, you would have no difficulty in my estimation in borrowing that sum of money from the Consolidated Fund, and repaying it again in three months.

1207. Mr. *Hale.* There seems to be some discrepancy between Sir John Hall and Captain Fisher as to the measuring of the ships. I wish to ask Mr. Horne whether, for all practical purposes, that is for the real space occupied as the river is, if the smaller quantity of feet given by Captain Fisher, or the greater quantity of feet which Sir John Hall states, is material to the question.

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1208. Mr. *Horne.* What I consider is they overlap their stern. Here are 10 ships, and they measure a certain number of feet, but they do not occupy so great a number of feet.

1209. Mr. Alderman *Venables.* I think Mr. Horne states in substance, that Captain Fisher's statement is nearer than Sir John Hall's. I wish to ask Mr. Hosie a question. Do I understand that you, and those whom you represent, object to 300 feet being kept; or that you would rather have 250 feet than 300 feet?

1210. Mr. *Hosie.* I conceive that 250 feet is quite enough, and the reason why the Pool is occupied now is, because of the steam-boats; no vessel is safe when two steam-vessels come alongside of her. If I were to send one of my smacks down with a steamer on each side of her, I have no doubt some parties would object to it: but the navigating of the river just now requires it.

1211. Mr. Alderman *Venables.* Sir John Hall appears here as a gentleman of considerable experience with reference to the Port of London, and being connected with the St. Katharine Dock Company gives activity to his exertions; he makes a statement on the part of the St. Katharine Dock Company, and there is a statement made by the harbour-masters of the Port of London; these differ materially: I want to know which is the most beneficial; because, though it may benefit the St. Katharine Dock Company, yet it may be a benefit to the City also. I say this because I have opposed, and shall oppose this, if it require too large a sum to carry it into effect.

1212. Mr. *Hosie.* It would be better for the navigation of the river if we had 500 feet navigable channel, but what I am looking at is this: where are the vessels to go that occupy the tiers? If a sufficient quantity of room is to be given, I am quite sure I should be glad if the Pool were the whole width of the river; but if this alteration is carried into effect, I hope you will take care to ascertain where we are to take the tiers to, before it is carried into effect.

1213. Mr. Alderman *Venables.* Then I understand you, that if no other evil were to result you would rather that the alteration should take place than not?

1214. Mr. *Hosie.* Most decidedly. If they were candid enough to tell us what they want, then we should know what they mean.

1215. Sir *John Hall.* I have only one observation to make, as connected with the subject touched upon by Mr. Hosie; he is a practical man: the fact is this, the committee well understand that the introduction of steam for the removal of vessels from the river has been one of the circumstances by which a crowded channel has been diminished; because, instead of ships being two or three tides moving up, and occupying the whole width of space athwart the tide, they are brought up now individually with one steam-boat alongside, and with one a-head; but they do not often do that; but at all events, if they do come through the Pool with two steamers, what is the width? It is not more than 37 or 38 feet, and the width of the two tugs is not more than 40 feet; they occupy that space of the 300 feet which Mr. Hosie is willing to give.

1216. Mr. *Hosie.* That has been said to-day by Mr. Alderman Wood, and he was rather severe; but I would ask any man to read Sir John Hall's petition: it is very fine and plausible; every body says the Pool should be wider, but the question is, has he pointed out where the vessel is to go? you must come up in some way until you come to the St. Katharine Docks, and in that case I should say other parties might be much injured.

1217. Mr. Alderman *Venables.* Then you oppose this principally from the apprehension you have of the St. Katharine Dock Company?

1218. Sir *John Hall.* I would ask Mr. Hosie one question, whether the St. Katharine Dock Company do not afford him every possible facility and accommodation in bringing his vessels up; and does he not use our buoys or craft every hour in the day?

1219. Mr. *Hosie.* No; we dare not do any such thing; your dock-master, the moment I presume to make fast temporarily to your dummy, forbids it.

1220. Sir *John Hall.* Do not you make use of the buoys there?

1221. Mr. *Hosie.* Yes, according to the Act of Parliament. There is another thing you have done; you have applied some land given for mooring for the steamers; now I have applied for moorings for my steamers; you esteem your moorings your own, you allow *no* person to go near them. I have not the facility you have; I dare not send my large steam-vessels to your berths, but I confess, after what you have just said, I am almost induced to send them there, in order to see what you will do. Three hundred and fifty people are satisfied with the accommodation, and the river has been navigated for the last thirty-five years as well as any individual could navigate it; and as long as the committee are disposed to give public accommodation I say nothing; but when private individuals are to have all the accommodation given to them, I certainly shall complain.

1222. Mr. Deputy *Blacket.* I wish to know which plan it is that Sir John Hall intends to bring evidence to. I put it in this way, because any gentleman who has any opposition to make, or suggestions to offer of his own, ought to know which plan Sir John Hall intends to advocate, that he may be prepared with his witnesses against it.

1223. Sir *John Hall.* In the first place, I mean to object to the mode of laying the ships down adopted by the bye-laws; and in the next place, I mean to say that this is a preferable plan to that.

1224. Mr. Deputy *Blacket.* Do you still prefer that?

1225. Sir *John Hall.* In my own judgment I still prefer this, but it does not follow as a necessary consequence, because you should not think it right to adopt this *in toto*, that you should not modify it; it has been put into your hands for the purpose of showing that there is something that we think it right should be adopted.

1226. *Chairman.* I should be glad to know from the harbour-masters whether they have seen the plans, and whether they have had time to look to the practicability of them? If they

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they have had time they can speak to them now. As to the 300 feet, that has been argued over and over again; what impression it has made upon the committee I know not; but I know it is hardly possible to bring any new matter upon it. Nine months were spent in trying to give effect to the 300 feet, and my opinion is, that that question is settled and cannot be altered; but the committee are bound to give Sir John Hall a hearing. When I was asked by Sir John Hall, before we printed our Report, to get him a hearing, the committee stated that they had heard all the parties over and over again, and it was hardly possible that any new light could be got on that fact; and that if every new point was to be heard they might be for ever going on. Upon that conclusion the Common Council states (and my opinion is the same), that the strong point is with regard to the propriety of removing those vessels; at the same time the committee are willing and anxious to give the 300 feet, as far as it can be preserved.

1227. Mr. *Bridge.* Do I understand that Sir John Hall has brought forward all that he means to bring forward with respect to the mooring of the vessels?

1228. Sir *John Hall.* I have to bring forward the evidence.

1229. Lieutenant *Mayott.* I think Sir John Hall has stated that Walker and Pickering had delivered in a plan, which he says has not been returned to them, although applied for; and which he now suggests should be gone into. I should wish Sir John Hall would inform me what year that was in, because, since I have been in the service, I have never seen this plan.

1230. Sir *John Hall.* I have never seen it either, and I know nothing further about it than the statement which the parties have made to me, and which they will be here to prove.

1231. *Chairman.* The question is, have the harbour-masters had time to look at this plan of Sir John Hall's, and are they now ready to speak to it, because if not, they must have time given them for that purpose.

1232. Lieutenant *Mayott.* I have not seen it until this morning.

1233. Mr. *Rowland.* In the year 1824 these plans of Messrs. Pickering and Walker were brought forward as evidence, before the Collier-Dock Committee in the House of Commons, and then by Sir Joseph Yorke they were laid on the table of this committee; there they were left; and therefore these plans never came under the harbour-masters' consideration; the harbour-masters had nothing to do with them.

1234. *Chairman.* Did you see those plans, Captain Fisher?—Captain *Fisher.* I saw them on the table of the House of Commons.

1235. Sir *John Hall.* Mr. Walker and Mr. Pickering told me what I have stated to the committee, and they will be here to prove it.

1236. *Chairman.* Captain Fisher, have you had time to look at these plans of Sir John Hall's?—Captain *Fisher.* I have.—*Chairman.* Let us hear what you have to say upon them.—Captain *Fisher.* I thought a report would be required, and therefore I have prepared it.—*Chairman.* I am speaking particularly with respect to the changing of the ships.—Mr. *Rowland.* It relates to the ships; it is signed by all of us.

The harbour-masters' Report was read as follows:

1237. Gentlemen, Harbour-masters' Office, St. Katharine's, July 8th, 1835.

We, the undersigned harbour-masters of the port of London, having seen a copy of a Memorial and Plan of the St. Katharine Dock Company, signed by their Secretary, which was presented to the Court of Common Council on the 2d day of July last: the said Memorial having been referred by the Court to your Committee, we feel it our duty to notice the same, and to report our opinions thereon, with reference to the plan for mooring and placing vessels in the Lower Pool. We first proceeded to examine the correctness of the following statement:

"Statement of the Number of Ships intended to be moored in Tiers on the North Shore in the Lower Pool, according to the proposed Bye-laws, showing the space each Tier would occupy; 25 feet being the computed space in width required practically for each Ship, which includes an allowance for fenders, shifting of ships and moorings, casualties, and providing for one craft alongside the outermost ship; showing also the Width of the River at low-water mark, and the Width of the Channel that would remain for the purposes of Navigation.

TIERS.	Number of Ships proposed.	Width of the average occupation of each Tier, about	Average width of in-shore Channel, North side, about	Total width from low-water mark, North shore, to the outermost Ship.	Width of River between low-water mark, about	Width of remaining water-way or Navigation Channel, about	Encroachment on the 300 ft. width of channel established by law, about
		feet.	feet.	feet.	feet.	feet.	feet.
Cole-stairs - -	22	550	100	650	860	210	90
Bell-wharf - -	23	575	100	675	875	150	150
Stone-stairs - -	20	500	100	600	720	150	150
Ratcliffe-cross, Upper	16	400	100	500	700	200	100
Ratcliffe-cross, Lower	15	375	100	475	665	220	80
Total number of ships	96"						

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It will be seen by the following corrected copy of the above, the errors and inaccuracies of the same:

TIERS.	Number of Ships.	Width of the Tier.	In-shore Channel.	Total width from low-water mark to the outside of the Tier.	Width of the River.	Navigation.	Average Beam.
		feet.	feet.	feet.	feet.	feet.	feet.
Cole-stairs - -	22	550	100	650	860	210	25
Bell-wharf - -	23	575	100	660	810	150	25
Stone-stairs - -	20	500	100	600	750	150	25
Ratcliffe-cross, Upper	16	400	100	500	700	200	25
Ratcliffe-cross, Lower	15	375	100	475	690	215	25
Number of ships	96						

The harbour-masters have no hesitation in filling up a similar formula of forming the tiers, according to the proposed bye-laws, by measurement and practical experience; and they have no doubt but the same opinion on the subject is entertained by the Honourable the Elder Brethren of the Trinity-House, and all uninterested parties.

The Harbour-masters' statement, in form as the above:

TIERS.	Number of Ships for each Tier.	Average breadth of Beam.	Width of the Tier.	Total width from low-water mark to the outside of the Tier.	Width of the River from low-water mark to low-water-mark.	In-shore Channel.	Navigation.
		feet.	feet.	feet.	feet.	feet.	feet.
Cole-stairs - -	22	22	484	524	860	40	336
Bell-wharf - -	23	22	506	546	810	40	264
Stone-stairs - -	20	22	440	480	750	40	270
Ratcliffe-cross, Upper	16	22	352	390	700	40	310
Ratcliffe-cross, Lower	15	22	330	370	690	40	320
Number of ships	96						

On the St. Katharine Dock Plan for placing and removing the tiers of colliers from the north side of the Pool to the south, we beg leave to say, the Pool will not accommodate afloat a sufficient number of colliers for the supply of the metropolis with coals. The passage through the Pool will be on a lee-shore, from the prevalence of south-westerly winds and the course of the tide setting on the same. The buoys necessary for transporting vessels to and from the London Docks and the Regent's Canal would be directly in the centre of the proposed navigation, and in the track of vessels passing up and down the river; and the removal of these buoys would render the entrances to these docks difficult and dangerous; whereas by the present system vessels are enabled to keep the weather-shore on board, and consequently pass through the Pools with greater facility. It will be seen by the St. Katharine Dock Plan, that in order to keep 300 feet of navigation, vessels are to moor so near the shore that they must lie upon their beam-ends at low-water mark, and strain themselves; and it will also prevent them from working and delivering their coals. With respect to the necessity of preserving 300 feet of navigation at all times, it is impracticable, and not actually necessary; and notwithstanding the opinion of 57 pilots who certified to that effect, and those dock-masters and others connected with steam-vessels, who again certified to the same, we beg to forward to your committee a representation upon the subject of the 300 feet, signed by 160 masters of vessels in the coal and coasting trades, constantly trading to the port of London; and a like representation signed by 128 pilots and watermen, daily navigating the Pools, men who are capable of judging, and fully competent to give a disinterested opinion on the subject. Those pilots, whose general business is to bring up vessels to the docks, will naturally lend their names to their employers; and if they require more space than they have hitherto had, it points out the necessity of amending the Act of Parliament, that other competent persons may be qualified as pilots for the River Thames.

With respect to buoying off the channel, according to the plan of the St. Katharine Dock Company, the harbour-masters are of opinion that placing buoys in the River Thames for marking off the passage, would be a great obstruction to the navigation, and a constant source of damage and expense, it being notorious that all buoys in the stream of a river are a nuisance. In conclusion, the harbour-masters have again to repeat to your committee, that

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that every accommodation has been given to the St. Katharine Dock Company, consistent with the interests of the coal, coasting, and other trades resorting to the port of London.

We have the honour to be, gentlemen, your obedient and humble servants,

Charles Rowland. *John Fisher.*
J. Mayott. *William Cousens.*

To the Worshipful Thames Navigation and
Port of London Committee.

1238. Mr. *Rowland.* That report shows that there never will be a less passage than 220 feet, whereas by Sir John Hall's statement it is only 170 feet.—Mr. *Hale.* How many pilots have certified to Sir John Hall's plan?—Mr. *Rowland.* Fifty-seven.

A Certificate from certain Masters of Vessels in the Coal and Coasting Trade was read, as follows:—

1239. We, the undersigned masters of vessels in the coal and coasting trades, who are in the constant practice of trading to the port of London, do hereby certify, that it is our decided opinion that it is not at all necessary to have a clear space of 300 feet at low water for the purposes of navigation from Limehouse Reach up to London Bridge, and that no real difficulty exists to persons conversant with the Pools. When any obstruction takes place, it is generally occasioned by large vessels being towed over the tide by steam to and from the docks, and meeting vessels and craft navigating regularly with the tide, and occasionally from the constant transit of steam-vessels passing through the Pools at all times of tide: and further, that by keeping a clear space of 300 feet at low water will greatly reduce our accommodation, as numbers of vessels will be obliged to be detained below, which will consequently add to the expense of the ship-owner, and by removing the tiers greatly assist in reducing the depth of water in the Pools; besides, it will be the means of driving vessels of a large draught of water out of the coal trade, as they must evidently lie within the line of 300 feet to keep them from grounding. April. 1835.

Masters' Names.	Vessels' Names.	Masters' Names.	Vessels' Names.
John Tully - -	Dorothy (owner).	Thomas Booth -	Eagle (master).
William Moodey -	Autumn.	Ralph Wood -	Elizabeth.
John Green - -	Sylvanus (owner).	Thomas Carr -	Lavinia.
William Robinson -	Arno (master).	Alexander Sibbald	Ruby.
Alexander Milne -	Anne Maria (master.)	George Broom -	Loyalty.

And 150 others.

A Certificate of certain Pilots and Watermen was read, as follows:

1240. We, the undersigned pilots and watermen, who are in the constant practice of conducting vessels through the Pools, do hereby certify, that it is our decided opinion that it is not at all necessary to have a clear space of 300 feet at low water, for the purposes of navigation from Limehouse Reach up to London Bridge; and that we are in the daily habit of bringing up vessels of large draught of water without damage, as no real difficulty exists to persons conversant with that navigation. When any obstruction takes place, it is generally occasioned by large vessels being towed over the tide by steam to and from the docks, and meeting vessels and craft navigating regularly with the tide, and occasionally from the constant transit of steam-vessels passing through the Pools at all times of tide. And further, that by keeping a clear space of 300 feet at low-water, it will greatly reduce the accommodation for the coal and coasting trades (as numbers will be obliged to be detained below, which will consequently add to the expense of the ship-owner), and by removing vessels from the tiers, assist in reducing the depth of water in the Pools.

Joseph Davy. *S. Pigrim.*
John Watters. *Matthew Jeves.*
John Giles. *John Hart.*
Edward Phillips. *W. Wilson.*

And 120 others.

1241. Mr. Alderman *Venables.* It is the interest of the pilots to discourage the large vessels coming up, and it is the interest of Sir John Hall's party to shew it would be advantageous. Do I understand you to say, Mr. Rowland, in your report, that, for instance, in Bell-wharf stairs and Stone-stairs, in which respect Sir John Hall gives only 150 feet, that there is in fact 200 feet or more.

1242. Mr. *Rowland.* Yes.—Captain *Fisher.* Sir John Hall states 100 feet in-shore, and we only take 40 feet in-shore; Sir John Hall averages 25 feet, and we take only 22.

1243. Mr. Alderman *Venables.* What advantage would that be to the trade, the giving 250 feet.—*Chairman.* It would give great advantage if you could give 400 feet.

1244. Captain *Fisher.* I agree with Sir John Hall, that if you could have 500 feet, it would be a great deal better, but the question is, can you?—Mr. Alderman *Venables.* I do not see how it affects those who have wharfs and warehouses, it is those who have the privilege of laying their ships there.—Mr. *Barron.* I want to ask Sir John Hall whether, with his

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his information upon the river, he can give what may have been the clear way of the river for any specific time; that is, whether there has been any quantity of feet from 150 to 300 upon the average?

1245. Sir *John Hall.* I should say, upon an average, one week with another, there never has been more than from 150 to 200 feet, even at periods when there might have been between 300 and 400 feet; because, at the times I am alluding to, ships were permitted to lie 23 or 24 in one tier, when in the next tier there was not more than two perhaps.—Mr. Alderman *Venables.* I heartily wish you would bring that before the committee.—Sir *John Hall.* I can do it; I can show that a common tug-boat actually took the ground in passing the northward of Mill-hole tier, and struck an anchor, and at that time there were not more than two or three ships in the tiers above.

1246. Captain *Fisher.* I am prepared to answer all those kinds of things. At the time Sir John Hall alludes to, there was hardly a single collier in the river, there was not a collier but was driven over; and one of these steamers was left high and dry.—Mr. *Burton.* What do you say is the average, Sir John Hall?

1247. Sir *John Hall.* I should say that from 150 to 200 feet is the average channel that has been kept.

1248. Lieutenant *Mayott.* I wish to explain the case. The Two Brothers, in the middle of Stone-stairs tier, in the last part of the ebb-tide, felt she had got foul of her anchor; the consequence of that was that the Unity, which was lying next to her, had not time to get her ebb-anchor out. The tier separated as soon as the flood tide came, and I will defy Sir John Hall, or any gentleman, to have got her clear off. The owner of the ship had not power to move her, because there was a vessel had got athwart-hawse of her.

1249. Captain *Fisher.* Mr. Alderman Wood, in opening the case, read the certificate of some pilots, describing the state of the Pool. I think that was in the month of January; at that time we had most tremendous gales of wind; in fact, with a great many of the colliers the harbour-masters made them put two anchors a-head. Now I have certificates from people here to prove that there was every exertion used, and it was impossible for any gentleman to have done otherwise.

1250. *Chairman.* Do any of you wish to say anything further to-day? I hope you will all be here next time, and very likely Sir John Hall will bring his witnesses to substantiate his opinion with regard to this plan.

1251. Mr. Alderman *Venables.* Mr. Horne, representing as you do the coal-trade, are you of opinion that it is necessary to have as many as 200 colliers there?—Mr. *Horne.* We were satisfied with the quantity granted.—Mr. Alderman *Venables.* I own I think it is a very great incumbrance.—*Chairman.* We never have 200. Captain Fisher, how many is the average number of colliers in the river?—Captain *Fisher.* I think from 160 to 170.

1252. Mr. *Travers.* I appear here for the Grand Surrey Canal, and I feel that I should not be doing my duty if I were not to mention to the port committee that this opposition has been forced upon us, as the only means for the protection of our rights. I have only to inform you, that although this memorial is dated the 28th of May last, it was only by mere accident that I happened to hear of it the day before yesterday. A lighterman came to my office and said, "Are you aware of what Sir John Hall is about to do?" He said, "Of course I mean the St. Katharine Dock Company: he is for turning over all the colliers to the south shore, and that is really as good as putting a lock upon the gates. At all events you ought to interfere to protect your own rights." He persuaded me to write to Sir John Hall for a printed copy of the petition; he said, "I dare say it would be sent to you." He has not forwarded me a plan after sending to him: he informed me he would send a plan on the following Friday. No notice had I of this proceeding except through this lighterman. I informed the board, when they directed me to attend; our dock-masters are anything but satisfied with the mode in which Sir John Hall is proposing to moor the colliers.

1253. *Chairman.* Perhaps you will attend here between this and this day week, with evidence to contradict Sir John Hall's proposal.

1254. Sir *John Hall.* In point of fact, you will find the tier, as proposed by this plan, lies exactly in the place where the other tier is. It does not approach within 300 feet to the eastward, and about 200 feet to the west tier.

Friday, 24 *July* 1835.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

WALTER ANDERSON PEACOCK, ESQ. in the Chair.

The proceedings of the committee at their last meeting were read.

1255. *Chairman.* Gentlemen, you are aware that we have met to-day for the purpose of hearing evidence in support of the allegations made by Sir John Hall in the course of his address to us last Friday. If any gentleman has memorials or plans to put in, now is the time to do so.

1256. *A Member.* I beg to put in a representation, signed by 68 licensed and 73 unlicensed pilots.—*Chairman.* This is not in favour of your plan, Sir John Hall.—Sir *John Hall.* No, sir; I have not yet seen it. The practice is, that everybody sees my plans, and none allow me to see theirs: but inquiry is all I want.

1257. *Chairman.* Are you prepared to call witnesses?—Sir *John Hall.* Yes; I wish to know whether there are any more petitions or statements to put in?

The following statement was then read:

London,

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London, 14th July 1835. No. 1.

Proceedings of the Common Council.

1258. We, the undersigned ship-owners, pilots and others engaged in conducting vessels navigating the river Thames, having been requested to consider of a measure suggested by the St. Katharine Dock Company to the Common Council of the City of London, that those parts of the river where the current sets the strongest should be appropriated to the purpose of transit, and that moorings should be provided for colliers on the opposite south shore, whereby it is represented a wider passage would be secured and kept with comparative ease, do hereby declare our opinion to be, That such transfer of the colliers to the south shore is calculated to do very serious injury to the London Dock Company, because the channel or highway of the river will be thrown thereby so near the approach to the Shadwell entrance, as materially to impede the passage of vessels in and out of the dock. That the moorings off the entrance will lay in mid-channel, or nearly so; and, consequently, any vessels lying there will be exposed to continual injury and damage from ships, craft, &c. passing up and down. That as affecting the colliers, it is highly objectionable, because a considerable portion of them will be removed from where they now lie, in 15 feet at low water on the north shore, to five or six feet water on the south; and if, in order to avoid the shoal-water, they were to be taken lower down, and placed near the point off Globe-stairs, they would then be exposed to serious damage, by settling upon and against a steep shore whenever the wind might blow strong from the northward. If it be proposed to avert this danger by laying down moorings, we would then observe that the same expense, or much less, would be incurred by placing them where the colliers now lie, and which, in our opinion, would meet all the difficulties at present experienced, by retaining the tiers in position, to the want of which alone are, in our judgment, to be attributed the impediments that occasionally occur, and which are unavoidable, notwithstanding the utmost vigilance of the harbour-masters. In the event of a hard frost, it will be impossible to get the vessels on shore on the south side to avoid the ice, which, we apprehend, the removal of the old London Bridge will cause to assume a much more dangerous character than heretofore. The plan suggested by the St. Katharine Dock Company appears to us to be also objectionable on public grounds; inasmuch as the portion of the river now occupied by colliers, and where there is full 15 feet at low water, will in a short period become so shallow as to prevent the passing of vessels of small draught of water at low tide. This we conceive to be made evident by the fact, that whenever the colliers have been absent from the Pool two or three weeks, the ground has filled up as many feet. When the Pelican and King James's-stairs tiers were kept, a depth of water existed of 10 and 11 feet; since their removal this part of the river has gradually filled up, and now dries. In January 1832, when the Shadwell-dock tier was removed, to lay down the moorings of the London Dock Company, 17 and 18 feet water existed at low water, Trinity standard, whereas there is now little more than 14 feet, although vessels are frequently left for days at the moorings, with a view to keep the ground open. As the prevailing winds are from the southward, the altering the channel to the northward must have the effect of throwing the vessels to leeward near Duke's Shore, and upon which both ebb and flood-tide set strongly, insomuch that with strong winds from the south and south-south-west, vessels will not be able to underlay the tide on either tack; the result of which must be to cause great confusion, impediments and damage. In considering this subject, it must be borne in mind that the Pool is only now narrowed, generally, when the wind blows strongly from the northward, which forces the tiers to leeward, and keeps such colliers as have dropped up from getting into the tiers so quickly as is desirable for the purpose of preserving a clear and unobstructed passage.

(signed) *W. J. Maughan*, Pier-head, Shadwell.
Timothy Hutchinson, Shadwell.
R. Flinn, Shadwell.
George Fawcus, Shadwell.
Robert Brown, Shadwell.

Licensed Pilots:

James Deane.	*John Humphreys.*
William Brownfield.	*Henry Pellatt.*
Thomas Huntley.	*Caleb Sellers.*

And sixty-two others.

Watermen or Unlicensed Pilots:

John Tadhunter.	*W. Young.*
John Pretty.	*Edward Griffiths.*
Thomas Rand.	*William Brown.*

And sixty-three others.

The following letter was read:

1259. Sir, General Ship-owners' Society, 72, Cornhill, 23d July 1835.

With reference to your letter of the 17th instant, I am directed to acquaint you, for the information of the chairman and members of the London port committee, that owing to the prevalence of easterly winds for the last few days, it has not been practicable for the parties deputed by this society to give evidence before the committee on the projected change,

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change, to take the necessary soundings on the south side of the river preparatory to doing so; and that their evidence, which would have been offered to-morrow, must be postponed until the next meeting of the committee, of which I beg the favour of your sending me notice.

I have the honour to be, Sir, your very humble servant,
Henry Woodthorpe, Esq. *Wm. Oviatt*, Secretary.

1260. Mr. *Smith* (Dockmaster of the Surrey Canal). I have some objection to make to the propositions of Sir John Hall.

1261. *Chairman.* I think you had better first hear the evidence which he is about to call. —Sir *C. Marshall.* I wish some explanation as to the course that is meant to be pursued, for the purpose of shortening time. It appears that several plans have been put in.—*Chairman.* I think the best course we can pursue is to hear the evidence which Sir John Hall has to adduce, and then we shall not be getting into fresh matter.

1262. Sir *John Hall.* I think it will tend very much to the convenience of all parties if I am permitted to proceed without interruption, and state the further evidence which I have to offer to the notice of the committee; and before I do so, inasmuch as petitions are the first things to be put in, I am charged to offer for the consideration of the committee a representation which within nine days has been signed by between 5,000 and 6,000 of some of the most influential merchants and ship-owners and others of the city of London. It is headed thus: "To the Worshipful Navigation and Port of London Committee, We, the undersigned merchants, ship-owners and others connected with the commerce and navigation of the port of London, consider it of vital importance that a free passage for the transit of shipping, especially through the Pools, should be preserved; and we hereby express our decided opinion that the law, requiring that a channel of not less than 300 feet should be kept at all times, should be strictly enforced, and that such width should not be diminished: and we further recommend that the subjoined improved Plan, marked B, for placing and mooring ships in the Pools, be immediately adopted, as one calculated to secure additional accommodation and further security to the shipping frequenting this port." The parties have had an opportunity of judging between the comparative merits of these plans, copies of which have been annexed; and this representation is signed by persons representing millions of property daily floating on the river Thames. It will be for you, gentlemen, to give it such consideration as the influence of such names as Baring, Brothers & Co., Inglis, Forbes & Co., Crawford & Co., and in fact nearly all the principal India houses, and Mr. Soames, one of the largest ship-owners in London, will entitle it to. The other petition which I have to put in is from rather a more humble class of the mercantile society, but many of whom, at the same time, are practical men; it is from inhabitants of Gravesend, in the county of Kent. They state that, having heard that the committee have under consideration certain regulations for improving the navigation of the river, they suggest that it is most important that a clear passage of 300 feet should be preserved, and on no account reduced. They pray that the committee will adopt such arrangements as may provide for the due and full execution of the regulations to be made, and that they may be enforced to the advantage, comfort and satisfaction of the public. These two petitions have been entrusted to me to present to the consideration of the committee, and I am sure they will give them that attention that they deserve.

The said representation of merchants, ship-owners and others connected with the commerce and navigation of the port of London, and petition of inhabitants of Gravesend, in the county of Kent, and others interested in the navigation of the river Thames between London and Gravesend, were then put in and read.

1263. Mr. *Hale.* I beg to ask Sir John Hall if this petition has not been got up in the office of the St. Katharine Dock Company?—Sir *John Hall.* The principal part of it certainly.——Mr. *Hale.* Have not the majority of the officers of the company signed that petition?—Sir *John Hall.* Yes, they have, and they form about 200 out of the 5,000 or 6,000.——Mr. *Hale.* Have not a number of the labourers or porters signed that petition?—Sir *John Hall.* I think not.——Mr. *Hale.* Are you not aware that some of them have signed it?—Sir *John Hall.* It may be so; I do not mean to deny that some of them may have signed it. They are, in their degree, as much interested in the preservation of the commerce of the port as any other individuals. When I finished my observations the last time I had the honour of appearing before you, I undertook to produce evidence in support of the propositions which I then advocated. It is my duty to call this evidence; and in the first place I shall take the liberty of calling evidence as to the width of the in-shore passage, which, according to the statement I have presented, ought to be an average of 100 feet. I was contradicted by the harbour-masters, who put in a representation to the committee, by which they stated it to be 140 feet, but I am now prepared to show what has been the result of a practical examination since the time when we last met.

Mr. *James Jones*, called in; and Examined by Sir *John Hall.*

1264. You are a civil engineer?—Yes, I am.——*Q.* Have you examined the width of the in-shore passage between the innermost ships of the collier tiers in the Lower Pool and the shore at low-water mark?—*A.* I have.——*Q.* Will you state the result of that examination?—*A.* At Cole-stairs tier the distance from low-water mark to the nearest ship's side was 122 feet.——*Q.* Will you state what the soundings were at the extremity of the line you have been speaking of, where the innermost ship lay?—*A.* At Cole-stairs tier it was 36 feet.

Sir

Sir *John Hall* put in the following Statement, and the same was read.

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1265. Statement of the Space between the innermost Ships lying in the under-mentioned Collier Tiers in the Lower Pool, and Low-water Mark on the North Shore, with the Soundings at Low-water, reduced to the Trinity *Datum*, which exhibits two feet greater Depth of Water than actually exists at Low-water of Spring-tides.

Cole-stairs Tier.	Bell-wharf Tier.	Stone-stairs Tier.	Ratcliffe-cross Upper Tier.	Ratcliffe-cross Lower Tier.
Ft. *in.*	*Ft.* *in.*	*Ft.* *in.*	*Ft.* *in.*	*Ft.* *in.*
1 6	2 6	1 0	1 9	6 3
2 6	4 0	4 6	3 9	8 3
6 6	6 6	8 6	7 3	11 9
9 6	7 6	11 0	10 9	12 3
12 6	8 6	11 6	11 9	13 3
13 6	9 6	11 6	12 9	13 0
13 6	10 0	11 6	12 9	12 9
	11 0		12 9	11 9
				12 3
Distance from low-water mark to the nearest ship's side, 122 feet.	Distance, as above, 77 feet.	Distance, as above, 108 feet.	Distance, as above, 143 feet.	The distance from low-water mark to the depth of 12 feet 3, as stated, is 150 feet.

Average distance about 112 feet.

21 July 1835. *J. Jones*, Civ. Eng. St. K. D.

1266. (By Mr. *Cousens*.) How was the wind at this time?—A little to the east.——*Q.* Was there any wind at all?—*A.* There was a little, not much.——*Q.* You are aware that the smallest breath of wind affects the tier of vessels?—*A.* There was very little wind at the time.——*Q.* But you are aware that the least wind that blows will shift the tier so many feet one way or the other?—*A.* If the wind has any strength at all it will do so.——*Q.* And the state of the tide will affect it?—*A.* I give it to you as I found it.——*Q.* What day was it when you took these soundings?—*A.* On last Tuesday.

Mr. *James Clear*, called; and Examined by Sir *John Hall*.

1267. You are one of the foremen of the St. Katharine Dock Company?—Yes, I am.——*Q.* You were sent on the morning of Saturday last, the day after the meeting of the committee, to examine the width of the water-way between the innermost ship lying in the collier-tier and the north shore?—*A.* I was.——*Q.* Did you examine it?—*A.* I did.——*Q.* What was the result of the examination?—*A.* On the south side, at Hanover-stairs tier, the breadth was 200 feet, and the number of ships 8; at King's-mill stairs 180 feet breadth, and 15 ships; at the Surrey Canal tier 190 feet breadth, and 17 ships; on the north side of Cole-stairs tier 90 feet breadth, and 23 ships; at Bell-wharf 100 feet, and 19 ships; at Stone-stairs tier 180 feet, and 16 ships; at Ratcliffe-cross tier 160 feet, and 10 ships.——*Q.* You were also directed to take the width of the ships lying in the tier opposite the entrance of the Grand Surrey Canal: how many feet did you find between the innermost ship of the tier lying opposite the Surrey Canal, and the point of the Surrey Canal entrance?—*A.* One hundred and ninety feet, and there were 17 sail within the tier.

1267*. Sir *John Hall*. It will be in the recollection of the committee, that my proposition was to lay down the tier in such a manner as that there might be no encroachment on the privilege of the Surrey Canal; and that I was contradicted by the dockmaster of the Surrey Canal, when I stated that the ships were in the habit of encroaching on their privileges.

1268. Mr. *Smith*. I never attempted to make use of any such argument: my complaint always has been that they do encroach upon us. In order to define the boundary of the tier, it was agreed between the harbour-master and myself to place a barge near the shore, so that the colliers might come abreast of that barge until they let go their anchors; their anchors fell within the boundary, but the ships all ranged without it. It is very bad holding-ground, and the harbour-master was obliged to move the tier yesterday.

1269. Captain *Fisher*. At the time you measured the in-shore passage on the north shore, did you measure the space in the navigable channel from the outside vessel to the south shore?—I did not.——*Q.* Did you not consider that there was sufficient space in the navigable channel, from the outside of that ship, for vessels to pass up and down?—*A.* There was not at Globe-stairs, they laid a long way over there.——*Q.* Can you inform the committee what distance there was of navigable channel?—*A.* I was not desired to take any other measurement.

1270. Captain *Fisher*. I have asked these questions to account for the large space that he says there is in-shore. The navigable space is quite sufficient for all purposes in one time out of twenty, but you perceive they have taken an advantage of measuring the channel at the time the wind was in their favour.

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1271. Sir *John Hall.* I do not think it was regular to make a speech during the examination: what time of the day was it when you took the measurement of those distances?—At 12 o'clock at noon.

1272. (By Mr. *Cousens.*) How did you measure these distances?—With a line.——*Q.* Did not your line go into the water?—*A.* Yes; but we had a scale with which we marked the line afterwards.——*Q.* But you are aware that your line would shrink?—*A.* Yes.——*Q.* How many inches to a foot would it shrink?—*A.* I cannot say.——*Q.* Are you aware of any impediment in the navigation that arises from there being so small a space of room at low-water?—*A.* On the north side?——*Q.* I am now speaking of that part of the channel of the river which you represent to be so much less than 300 feet.

1273. Sir *John Hall.* He has not said a word about that. My question goes to this: if there was a less space than this 300 feet, would there be any complaint of the impediment to vessels navigating the river?—It was on the north side that I said there would be plenty of room.

1274. Sir *John Hall.* I now beg to call before the committee two gentlemen from the St. Katharine Dock office, Captain Compton and Mr. Owen; and if the committee will allow me, I will call them both at once, as I conceive that will be the most convenient mode of examining them.

Captain *Compton* and Mr. *Owen,* called in; and Examined by Sir *John Hall.*

1275. I believe, Captain Compton, that you are the dock-master to St. Katharine Dock Company?—Yes.

1276. Mr. Owen, I believe you hold the situation of one of the superintendents?—I do.——*Q.* Were you sent by the dock-masters to examine the inner-shore passage, together with Captain Compton, on the 16th of last June?—*A.* I was.

1277. Will you have the goodness, Captain Compton, to state to the committee what was the width that you found between the innermost ship and the north shore, at low-water mark?—At Cole-stairs it was 58 feet, at Bell-wharf 120 feet, at Stone-stairs 127 feet, at Ratcliffe-cross 244 feet; and there were 12 ships in Ratcliffe-cross upper tier, and none in lower tier.——*Q.* Do you, Mr. Owen, concur in the representation which has been given by Captain Compton?—*A.* I do.

1278. At that period, Captain Compton, I believe you looked to the width of the Pool at Stone-stairs tier?—I did.——*Q.* What might be the width of the Pool, which by the bye-laws is required to be 300 feet, between the outer tier off Stone-stairs and the low-water mark off the south shore?—*A.* One hundred and fifty-five feet.

1279. You have had a good deal of experience on the river Thames, Captain Compton, and I should like to have your opinion as to what ought to be the fair allowance of space for a collier lying in a tier, in the ordinary mode of mooring, taking it on the average, and allowing for all casualties, such as high tide, the effect of wind, the ships hauling in and out, and the shifting of the moorings; what do you consider ought to be the fair number of feet to be allowed under those circumstances in the river Thames?—Not less than 25 feet.——*Q.* Do you, Mr. Owen, concur in that?—*A.* I do.

1280. I believe that some time ago you made a great deal of examination in the Pool, of the number of feet that this tier occupied, by measuring them with a line?—I did.——*Q.* What was the result of that admeasurement?—*A.* I do not recollect the date when it was made, but the result of the admeasurement was 23 feet 9 inches.——*Q.* Was there not an examination taken at a former date, when the average came to 25 feet?—*A.* I do not recollect that—not the average.——*Q.* But the last examination that you took, how long ago is that?—*A.* I do not recollect exactly.——*Q.* At all events, it was 23 feet how much?—Twenty-three feet 9 inches. It is impossible that you can place a vessel in that space; you cannot have less than 25 feet; you cannot suppose that 25 or 30 vessels will lie as straight here as in still water. Sometimes they will necessarily lie a little distance from each other; and you cannot allow less than 25 feet for vessels to lie in the Pool.

1281. Give your opinion to the committee, as to whether, in your judgment, it would be expedient to diminish the 300 feet passage, required by law to be kept for the navigation of the shipping generally, in the port of London, to 250 feet?—Certainly not; for then we should never get a vessel from 500 to 800 tons burthen to come up either to the London Dock or to ourselves.

1282. Do you consider that 250 feet is sufficient for a ship of 450 tons to have room for swinging?—I do not.

1283. Then, in your judgment, do you think that 300 feet ought to be kept as the law now requires?—Yes, I do.

1284. What is the ordinary length of vessels that generally come to your docks?—A vessel of 500 tons I should take to be 180 or 185 feet long; some are longer than others; for instance, the New York packets, which you cannot take at less, they being 600 tons. If you were to draw a line from stem to stern it would not be less than 185 feet, including tafferels, and that would not allow for swinging.

1285. *Chairman.* Have you been in the habit of taking notice of the width of the river for a long period of time?—Occasionally.——*Q.* How often?—*A.* Since our establishment I have done it some four or five times.——*Q.* Within how many years?—*A.* About seven.

1286. During these four or five times have you seen the river clear of 300 feet?—I have never gone there at low-water mark to measure and found 300 feet.

1287. Have

1287. Have you ever heard or known of any of these large 500 or 600 ton vessels being impeded in their coming up the river for want of room?—I have, and which has prevented them from coming up until half an hour or an hour after high water.

1288. Do you happen actually to have known that to be the case?—I have known them to have been put back in the Pools for want of space to come up, but that I have heard from the pilots.——*Q.* Your duty confines you to the pier-head of the dock for docking ships; you are not set afloat unless sent down by the company; I therefore request you only to state that which you know of your own knowledge?—*A.* I can speak five or six times from occular demonstration, that I have not found 5 or 6 feet at low-water.

1289. Your occupation is always at the pier-head?—Yes.——*Q.* Then, unless you are sent down for the purposes of practical examination, you do not go to see whether the Pool is clear?—*A.* Not altogether; but I have often done so.——*Q.* When you have been down on these occasions, what has been the result of your observations?—*A.* I have never found 300 feet there.——*Q.* What was the largest width you ever observed?—*A.* The largest space I ever observed was 245 feet.——What was the smallest number of feet?—*A.* I think 90 and odd.

1290. You have seen these two plans as to the accommodation on the river, representing the state of the Pool, and providing that 100 feet shall be the average width between the tier and the north shore, and you are aware that the ships have been allowed a space of 25 feet to moor in; assuming that to be the fact, and there being only 150 feet remaining for navigation, I take leave to ask your opinion, as a practical mariner, whether the plan which has now been put in is preferable to the plans that have been put on the table; and whether it can be practically carried into effect?—Yes, I do, certainly. It is evident that the channel of the river should be in that part where the set of the tide is.——*Q.* You think it ought to be in the set of the current?—*A.* On the north side, in that particular part.——*Q.* Will the same opinion apply to the ebb as the flood-tide?—*A.* Yes.

1291. Have you considered the advantage that will accrue to the shipping, by the placing of these craft for mooring the colliers?—I have. It will prevent ships from letting go their anchors; a vessel can get hold of one or the other of these crafts, when she is coming up with the wind, without letting go her anchor. Ships now are obliged to let go their anchors in coming up, and if one does, another is obliged to do so, and perhaps that is followed by a dozen.——*Q.* Do you not think that the arrangements of the ships in this way will be of great protection to the navigation by His Majesty's subjects in small boats coming up and down the river?—*A.* Certainly. The space left there will be no hindrance whatever to them.

1292. Do you see any difficulty in the navigation of the river, exclusive of the disadvantages arising from the colliers being placed where the current sets the strongest?

1293. (By Captain *Fisher.*) As a practical man, I beg to ask you whether you consider it possible, considering the effects of winds, tides, and other circumstances, that 300 feet can always be preserved?—Yes; if you remove some of the colliers out of the Pool it can; if you place as many colliers in the Pool as you propose you cannot do it: if you put all the colliers in the Pool it will block up the whole of the river.

1294. You spoke in favour of the passage near the north-west shore; are you aware that it is a lee-shore nine months out of the year?—I do not know that it is altogether.

1295. The tide sets on to that shore, does it not?—The tide sets up and down the river.

1296. Are not vessels in passing up and down the river liable to go on shore by being hove to leeward?—Not more than on the other side with a northerly wind.

1297. In case of a vessel anchoring in the newly proposed channel to the northward, what would be the consequence of a vessel passing up against you?—I cannot tell you the consequence; neither do I beleive that you can.

1298. *Chairman.* We are anxious to have evidence before us, not to have observations that are unnecessary or irrelevant.

1299. Captain *Fisher.* The vessels passing to the northward must inevitably pass the London Dock entrance?—Certainly.——*Q.* Do you not think it would cause obstruction by the vessels coming in contact one against another?—*A.* No, I do not think so; for there is a large space right across the river.

1300. Do you not think that, by the present passage, by keeping the weather-shore, you are enabled to reach further down Limehouse Reach?—With the wind—how do you mean?——*Q.* With the wind at south-west blowing strong?—*A.* Yes; but you recollect you have no tide to help you on the south side.

1301. (By Sir *John Hall.*) I think you said that when you took notice of the river you observed there was not a clear water-way of 300 feet?—No, there was not.

1302. Have you been acquainted, within six months, with any accident taking place from those circumstances?—Not particularly.

1303. In mooring the vessels that lie in tiers, did you not state the average to be 23 feet?—Yes; but I said that 25 would be the space they would occupy on an average.

1304. In mooring the vessels, do you moor them in the broadest part?—I do.——*Q.* In laying the ships in tiers, do they occupy the widest part of the river or not?—*A.* They do, but they do not lie regular. You cannot place vessels in a strong tide as you would in still water.

1305. When they are lying in a proper way, they do not occupy a space of 25 feet?—They do not, exactly. I think 25 feet ought to be allowed.

1306. The south shore is not so deep as the north shore at the low-water mark?—I do not know exactly.

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1307. You perceive that on the south side, in the place where vessels are moored, there is a sort of eddy?—Yes, there is.——*Q.* If there was a scouring underneath the place where the vessels were moored, that would cause a deepening of the river, would it not?—*A.* I am not competent to speak to that.——*Q.* If it causes a scouring underneath the vessels that would be the natural consequence of it?—*A.* The deepest water is in the middle of the river.——*Q.* If it was to deepen the southern shore, by the moving of vessels from the northern to the southern shore, would not the mud be collected on the northern side?—*A.* Not where there is any strength of the tide.

1308. When you speak of ships being on the southern side, is there sufficient room at low-water for them to ride there?—Yes, I think there is, according to the place that I have examined.

1309. Sir *C. Marshall.* Sir John Hall has introduced to your notice two plans; the one proposed by the harbour-masters, the other by himself. I now wish to draw your attention to the plan proposed by the London Dock Company, by which there is a reduction made of 20 sail, making it 150 instead of 170: looking at the course of the channel as proposed, my question to you is, which of these plans, on a careful view, do you consider would be most eligible?—From what I can see on this plan, my individual opinion is, that they would be better on the southern shore: the channel on the northern shore would be better than that on the other shore for the transit of ships.

1310. Is it customary for ships of 500 tons burthen to come up at low-water?—I have never seen them do it.

1311. Then if there is a space of 300 feet at low-water mark, what would be the average space at high-water, oppposite the same part of the shore?—I dare say there is 100 feet of shore there at low-water. You cannot take a vessel drawing 15 or 17 feet of water.

1312. You have given evidence that a vessel of 500 tons burthen requires 300 feet of water-way?—Yes.——*Q.* Then, as she never comes up at low-water, and as she comes up at the top of the tide, in the same part of the river there would be 400 feet available, according to your argument?—*A.* Yes; there would be 100 feet that you could not take ships upon:—this in-shore water is almost useless.

1313. Sir *John Hall.* The thing must be quite clear to every practical man. What is the average of a draught of water of a ship of 500 tons coming up with a cargo?—I should say 17 feet.

1314. What is the lift of the tide on a neap-tide?—The average is 19 feet.——*Q.* That is a spring-tide, I am speaking of a neap-tide?—*A.* 16 or 17 feet.

1315. A ship that draws 17 feet water would never attempt to approach low-water mark, because she would take the ground?—Certainly.

1316. Then any space between low-water mark and the shore can only be used by vessels that draw very little water?—Vessels that draw much water never approach that shore.

1317. You have been asked by Captain Fisher whether it would not be preferable to put the vessels on the south instead of the north shore: now, as a practical experienced mariner, who has navigated ships for 30 or 40 years, when you bring vessels up, do you not always endeavour to get the deepest water and the strongest current?—Certainly.——*Q.* You do not hug the shore where there are eddies, or get into shallow water?—*A.* No, certainly not.

1318. Assuming that the committee were to approve of the plan of putting ships on the south shore, you were asked by Captain Fisher whether you did not think it would impede the entrance to the London Docks. I beg to ask you whether you recollect how many years it is since the Wapping entrance to the London Docks was opened?—I do not recollect, but I believe about 20 years.——*Q.* Is not the Wapping entrance to the London Docks regulated precisely similar to what this would be, in the event of this plan being carried into effect?—Certainly.——*Q.* Did you ever hear any complaint of difficulty or impediment in navigating through the Wapping entrance to the London Docks?—*A.* No.

1319. Is it not the constant practice, day by day, to see ships or craft of 100 tons burthen passing between the principal buoy of St. Katharine Dock and the pier-head?—Certainly it is, every day; but what can you do?—you cannot stop them.

1320. What is the distance from the shore to the buoy at the St. Katharine Dock entrance?—About 150 feet.

1321. The London Docks have three entrances, have they not?—Yes.——*Q.* The Wapping entrance is the one near to Shadwell church, is it not?—*A.* Yes.——*Q.* So that, in point of fact, for the purposes of navigation, they have a practical jurisdiction, throwing the Hermitage aside, over no less than 2,400 feet of the navigation of the River Thames?—*A.* Altogether they have.

1322. Provided this plan, marked letter B, be approved of by the committee, are you decidedly of opinion that the interests of the London Dock Company will not suffer so long as 600 feet is preserved to them, the buoy being within a reasonable distance, and there being a sufficient channel between the tier opposite to the Surrey Canal and the entrance of the London Docks, for the navigation of ships up and down?—I think they would not, certainly.

1323. You have been asked as to the admeasurement of the tiers; I believe you measured these tiers in the Pool, not ship by ship, but with a line from the innermost ship to the outermost ship?—Yes.——*Q.* I am only asking you how you did it, in order to know how you arrived at the 23 feet 9 inches?—*A.* That is the way in which I arrived at it.

1324. On the subject by scouring of ships lying in tiers, I beg leave to ask you, whether in point of fact ships lying in tiers, although scouring the mud, do they scour the bed of the

the river; do they make deeper water in the bed of the river?—No, they only take the surplus mud.

1325. Were you acquainted with the depth of water in the Pool about 1799 or 1800, at the period of the discussion as to making the West-India and London Docks?—I never laid in the Pool about that time in a ship except once or twice, and that was in a West-Indiaman which drew about 19 feet water, and she laid there and discharged her cargo.

1326. What may be the depth of water there now?—It is something about the same depth it was then; I was there two voyages in a vessel before the docks were made.

1327. *A Member.* I think you stated that you had known ships detained for want of space to come up the channel; can you give us the width of the channel at that period?—I cannot; I only know it by hearsay from the pilots.

1328. At the time when you took the measurement from which you have given your evidence, was there a space of 200 feet?—I have never known it to be 300.

1329. When you were asked how much you had known it to be, I think you said about 190 feet?—The greatest width that I have known was 245 feet; but how many ships there were in the Pool, or how the wind was at the time, is a question that I am not competent to answer.

1330. Captain *Fisher.* Captain Compton has said that it is necessary to have 300 feet of clear space for the navigation in the Pool: I beg to ask him whether he thinks that it is actually necessary to have 300 feet?—*Chairman.* He has said so already.——Captain *Fisher.* Then, if that be necessary, I beg to ask Captain Compton how it is that vessels of such large dimensions as 700 or 800 tons burthen are passing in safety every day up and down to the St. Katharine Dock?—*Chairman.* He has told you before that he cannot say anything about that, as he is not engaged in that part of the business.

1331. Mr. *Hale.* Sir John Hall asked Captain Compton if a 500-ton ship did not draw 17 feet of water; and stated that there was a depth of 19 feet at low water. Is it a general thing, or does it ever occur, that the captain of a vessel or a pilot thinks of bringing up a ship at that time of the tide; or is it not always done at high-water?—*Chairman.* That question has been answered already two or three times.

1332. *A Member.* It appeared in the newspaper some time ago that a vessel called The Marquis of Hastings, of 500 tons burthen, came from the Nore, from whence she started at eleven o'clock, and arrived at the St. Katharine Docks at three in the afternoon; is that account of her passage correct?—I believe it to be so.——*Q.* And the distance is about 60 miles?—*A.* It is more than that; it is nearer 70.——*Q.* That would be a tolerable proof that the vessel had plenty of room?—*A.* Yes; it certainly was a very quick passage up.

Captain *Bullock*, examined by Sir *John Hall.*

1333. I believe you attend here to-day in pursuance of an authority from the Lords of the Admiralty, for the purpose of giving evidence on the subject now under the consideration of the port of London committee?—I do.

1334. Will you have the goodness to state whether you have devoted your attention to the alterations proposed to be effected in the bye-laws, in the manner delineated on the plan before you; and whether you have also given your attention to the plan marked B., which has been submitted to the consideration of the committee as an improvement on the other plan; and what is your opinion on these two subjects?—Am I to answer the question as to the difference of the plans?——If you see any objection to this plan, have the goodness to state your objection.—*A Member.* That must not be taken as the way in which the ships lay; it is not the plan that is now before us.——*Chairman.* No one knows the river Thames better than Captain Bullock—you cannot puzzle him.

Captain Fisher here handed a plan to Sir John Hall.

1335. Sir *John Hall.* Now we have at last got to close quarters: I have never been able to get a plan before from the other side. Captain Bullock, will you have the goodness to explain to the committee whether the ships being moored on the north shore, leaving the channel open on the south shore, you approve of the mode in which it is proposed to lay these ships, or whether you have any objection to it?—I should certainly prefer that the regular clear channel should be on the north side, where the tide is the strongest.

1336. *Chairman.* Then you approve of Sir John Hall's plan?—I do most decidedly; and I think I can almost venture to say, although I cannot say so officially, that it is approved of by the Admiralty.

1337. *Chairman.* Will you state to the committee how this would operate as to the depth of water in the river?—Throughout my survey of the river Thames I have never found that the channels invariably preserve their depth. It is owing to the shifting of the shoals that the depth increases or diminishes; but the clear regular channel of the river has preserved its depth throughout.

1338. *Chairman.* Are there not a great number of shoals on the south side of the river?—There are, certainly, a great number.

1339. Have you ever considered the expense that would be incurred by removing these shoals, and mooring the ships according to Sir John Hall's plans?—No, I have not; but I think that ought not to be an objection to it.——*Chairman.* That is a very material thing to us.—*A.* It may be so with you, but it is not with me; and I can assure the gentlemen of this committee that the time is not very far distant when they will be obliged to take this part of the subject into their consideration. According to the other plan, you have to cross the tide to moor your vessels. I have felt from experience that that is a very considerable inconvenience, and I have so stated to Captain Fisher.

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1340. Sir *John Hall.* I must say that I labour under many disadvantages; I am not dealt with as I deal with others. I promulgate and distribute all my plans, but I never receive any intimation of what other people are about to do until I come here, and then plans are presented to me which I have never had an opportunity of seeing before. I have never seen either of the plans put in by the harbour-masters or the London Dock Company. I distributed my plans to every other person, and I wish they would do the same by me. Now, Captain Bullock, the plan put in by the harbour-masters allows 22 feet for each collier; I would beg to ask you whether, having seen a great deal of the river Thames, you think that a sufficient average space for the colliers lying in tiers, including all casualties?—I should think not probably; but I have never examined or measured them.——*Q.* But what is your opinion, speaking from your own judgment?—*A.* I should think that they would be exceedingly close: my own opinion is that it is not sufficient room. ——*Q.* What opinion are you able to form from your own judgment, although you have not measured them, of the space which ought to be allowed for a collier-ship lying in a tier, and so moored as to have the channel kept clear?—*A.* I think it would be better that you should ask me general professional questions, such as I am able to answer: I should answer, that the north shore is preferable to the south.

1341. Then, in your judgment, the channel for the navigation of shipping communicating with the port of London ought to be on the north, and not on the south shore?—Decidedly; as a practical man, I can answer that.

1342. Are you able to speak as to the width of the in-shore passage?—My examination of the shipping was made at a time when they were moving about every tide.

1343. Will Captain Bullock have the goodness to inform the committee what his opinion is, as to whether it would be expedient to preserve a clear channel of 300 feet, or to diminish it to 250 feet?—I can give a decided opinion that it never ought to be less than 300 feet; indeed I should say more. I am not a very experienced navigator among such difficulties, but even in my small vessels I was almost afraid. I have pointed out the shoals, and spoken of them to Captain Fisher and the other harbour-masters. I recollect coming up in a steamer on one occasion when I swamped three vessels out of one tier, in consequence of being obliged to anchor ahead of them, and I had to pay for it.

1344. Having pronounced an opinion approving of one plan in preference to the other, I beg to ask you if in your judgment you do not consider that by setting apart the south shore for the passage of boats up and down, it will afford material protection to the lives of His Majesty's subjects?—I do, and that it would be of very general benefit; for the tiers of colliers would protect the small boats, which generally go in-shore.

1345. *A Member.* We are not to see a few benefited at the expense of the many: looking at the present plan, and at the proposed plan, supposing that there were a number of ships working up the river, some wanting to go into the London Docks and some elsewhere, would the convenience of entrance to the London Docks be as great, according to the plan proposed by Sir John Hall, as it now is?—Yes, I should say so without a moment's hesitation: any vessel that can pass here [*describing the position*] can pass everywhere else. I really consider that the proposed change would be beneficial to the dock instead of having to go round the tiers as they do now.

1346. Captain *Fisher.* Is it not desirable that the navigable channel should be in deep water?—Certainly.——*Q.* Are you aware of the shoal in Limehouse-hole?—*A.* I am. ——*Q.* The proposed passage of Sir John Hall will lie right over that shoal?—*A.* I think not; because the tide runs over on the north shore.——*Q.* Is it not likely that vessels will be drifted into the shoal-water?—*A.* Not more likely than it is now: before they get to the narrow part of the channel, they will pass the Limehouse shoal.

1347. Mr. *Cousens.* According to Sir John Hall's plan, marked (B.), changing the tier from the north to the south shore, the vessels are to be moored by fixed permanent moorings?—Yes.——*Q.* Are you aware that colliers at present moor by their own anchors?——*A.* Yes.

1348. In your survey of the River Thames, did you find that where there were fixed moorings it had any influence on the bed of the river?—It certainly has where the moorings are raised, as they are in the Pool, by throwing down gravel, and such stuff as that.

1349. In surveying the Pool, you found that this had influence on the bed of the river?—And that ever will have influence.

1350. Do you not think it objectionable to place fixed moorings in the Lower Pool?—It is objectionable to place fixed moorings anywhere in the Pool.

1351. In sounding about the London Docks, there were 17 or 18 feet in the year 1830: when the London Dock moorings were fixed, they decreased the water considerably?—I do not know that.

1352. Do you think that the mooring of ships on the south side of the river, according to the plan marked (B.), is a superior plan to mooring colliers without fixed moorings?—I give my opinion on that decidedly.

1353. If the wind is blowing strong from the east, and a ship of 500 tons is coming up, if she lets go her anchor, will not her head come round to the south-west; if so, she will come on these tiers of ships?—If she lets go her anchor outside, how can her head reach the tier of ships.——*Q.* The ships' bowsprits would be over all these tiers?—*A.* I think yours are false premises: if they could not clear a tier, it would be madness to anchor so as to be in the way of it.——*Q.* If the ship let go her anchor to prevent her going on a lee-shore, she would haul to windward?—*A.* She would go to leeward of her anchor.

1354. Do not colliers sometimes run themselves aground in Cuckold's Point to avoid the confusion?—I think they are right if they do; I would rather do that than carry away my spars.

1355. *Chairman.*

1355. *Chairman.* If I understand Captain Bullock rightly, he means to show that, mischievous as it is now, it would be worse through the proposed alterations?—No; I cannot say that.

1356. Would not the mooring of craft outside of these tiers decrease the water considerably?—Not if the moorings were laid down properly.——*Q.* How would you lay them down?—*A.* I should excavate for them. In making the improvement contemplated, I would avoid every interruption to the river navigation.

1357. Sir *C. Marshall.* Your attention has been drawn to two plans, but not to the one put in by the London Dock?—No.——*Q.* Look at that plan, and favour the committee with your opinion as to the eligibility of that plan in preference, or not, to the others. You will perceive, that it is contemplated to reduce 20 sail at the different tiers: give the committee your opinion whether the plan (A.), (B.) or (C.) is the most eligible, considering the state of the river and the course of the navigation?—This plan (C.) is very much improved by the line being made more straight, but still I prefer the other plan.

1358. As the plans are now laid before you, taking all the circumstances into consideration, which of these plans do you prefer?—Why, I prefer this plan (B); because the tide infringes on this shore [*describing it*].——*Q.* Do you mean so high up the river as the Thames Tunnel?—*A.* Not so high as the Thames Tunnel.

1359. Are the committee to understand that, under all the circumstances, you prefer the plan marked (B)?—Under every circumstance I prefer that plan, but I think the plan (C) is an improved plan.

1360. *Chairman.* I think we should all agree if we were to take the ships away?—I think we should; I would take all the ships away.

1361. Mr. *Smith.* In the present state of things, we are very much encroached upon by the way in which ships are moored in the river. Suppose you bring a tier of ships and lay them close to us, the colliers know that if they go over that tier we shall punish them, and therefore they make as little encroachment as possible. If you legalize these two tiers, and have ships out and in, across the entrance, together with all other necessary craft, in what situation will the Surrey Canal be placed?—The question appears to me to be, whether the moving the colliers would not be the most preferable plan, and I answer, as I did before, that I would take everything away to improve the river. At the Shadwell entrance, I would prefer that the north channel should be open.

1362. Mr. *Smith.* If there be two tiers placed here, we shall be completely blocked up.—Sir *John Hall.* The plan which I have submitted here is a plan according to the original tier. In point of fact, the dock-master of the Surrey Canal did not object to having one or two ships placed within their boundaries, but their objection will not affect the plan generally; all that you have to do is to take away three ships.—*Chairman.* If I understand you rightly, Mr. Smith, your objection is to the ships being all on one side of the river.—Mr. *Smith.* Most indisputably.

1363. Sir *John Hall.* Do you not think, Captain Bullock, that allowing 400 feet between this tier and the tier at the outside of the Surrey Canal, with a mooring-craft stationed at the corner of the tier, so that ships going into the Surrey Canal may make fast a rope and sheer on, is a better plan than with the buoy-line where it is now?—Yes, I should say so; but I should still prefer the dock to be open.——*A Member.* But that is the best plan for the Surrey Canal?—Yes.

1364. You stated that the expense of carrying Sir John Hall's plan into execution would be very considerable?—Certainly.——*Q.* Have you turned your attention to what the expense of removing the shoals would be?—I have not; but I think it would be very considerable.——*Q.* Do you think it would cost 20,000*l.*?—*A.* Yes.——Do you think 40,000*l.*?—*A.* I think somewhere between the two sums; but then the general benefit would be a very great compensation.

1365. Would not such vessels as lighters, and other craft, be very much incommoded in their going in and out of the dry dock of the Surrey Canal, when all the ships were laid on one side?—That would be the case if they were moored on the opposite side.——*Q.* Would it not be attended with great inconvenience both to the canal and to the dry dock?—*A.* I think that requires some little consideration; there certainly would be some inconvenience.

1366. I believe you are an officer in His Majesty's navy?—I am.——*Q.* And you have been employed by the Lords of the Admiralty to survey the river Thames?—*A.* I have.——*Q.* Do you not, as a practical man, believe it to be necessary to clear the river Thames of all shoals, in order that our docks here may successfully compete with the docks at Liverpool, and others of the out-ports?—*A.* That is my opinion, certainly.

1367. Mr. *Hale.* There is one branch of the trade that has not yet been considered, and I beg to ask Captain Bullock if he understands the boats that navigate from Dunkirk to the river Thames?—I have seen them.——*Q.* Will it be possible with a strong south-west wind to get near to the vessels in the way that Sir John Hall intends them to lie?—*A.* I should think it quite as possible to get near them on one shore as on another. In coming down the river, if there was a north wind, would not the same objection apply to their reaching the north shore?

1368. Sir *John Hall.* If proper steps were taken by the committee to clear the in-shore passage, as proposed by this plan, is there anything to prevent the coal-craft from approaching and keeping on the south shore?—None at all.——*Q.* Will not that be an improvement on the driving down on the other shore?—*A.* Certainly.

1369. *A Member.* I think Sir John Hall proposes that the mooring-chains should be fixed.—Sir *John Hall.* My proposition is, that so far as six mooring-craft are concerned,

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they should be stationary. Stones could be sunk below the bed of the river, and the colliers could moor to buoys and chains fixed to those stones; the chains would not lie across the river to impede the vessels.——*A Member.* When the committee asked you a question as to the expense of removing the shoals, that did not apply to the fixing the mooring-chains, which is to be done by excavation?—*A.* Certainly there would be an expense incurred; but I think that the benefit would be commensurate with the expense. The expense of clearing the river by and by will be tremendous.

1370. Have you submitted the plan and the printed forms to the Admiralty?—Yes, one of them.——*Q.* It is upon that which you are reasoning?—*A.* It is that upon which my judgment is formed, but not officially.——*Q.* Not upon the plan of the harbour-masters?—*A.* I have not seen either of the other plans before.

1371. Sir *John Hall.* I am ready to admit that the plan of the London Dock Company is a very great improvement. There are several witnesses whom I wish to call, who are all of one class; I mean the pilots: and perhaps it would be more convenient that I should call them altogether.

Messrs. *Pashley, Dix, Walker, Pickering, T. Ross, E. Ross, Hughes, Grice, Chapman, Smith, Clarence, Mozely* and *Voy,* were then called in; and examined as follows, by Sir *John Hall*:

1372. Allow me to ask you a question as to the in-shore passage: what, in your judgment, upon an average, taking one week or one month with another, may we consider to be the distance between the low-water mark and the innermost ship from the north shore?—*A Pilot.* One hundred feet is sufficient, as they lie generally; it is sometimes more and sometimes less.

1373. What, in your opinion, ought fairly to be allowed for the occupation of a collier lying moored in a tier, taking all casualties into consideration, such as the shifting of the moorings, the effect of the wind on the tier, the fenders, and having a craft lying outside; how many feet per ship would you allow?—Taking 10 ships in a tier, 25 feet will be sufficient.

1374. I shall be glad if you will favour the committee with your opinion as to whether, in point of fact, it is necessary that a channel of not less than 300 feet should be preserved for the navigation of shipping through the Pool, to communicate with the wharfs, warehouses and docks above Limehouse Hole?—Certainly not less; I should say more, if anything.——*Q.* For the general purposes of navigation you think, taking one month with another, that 300 feet will be quite sufficient, although some persons think it would be better to have more?—*A.* It should never be less than 300 feet.

1375. That being your joint opinion, give me leave to ask you a question, as practical men, do you consider that, in the navigation of a ship, it is expedient to keep her in the fair set of the current, or do you think it is more expedient to navigate the ship in slack water, and in eddies?—In the set of the tide to be sure: there can be no question about that.

1376. Do me the favour to say whether, in your opinion, with the exception of having a less number of ships near to Cuckold's Point, on general principles you think it would be better to place the ships on the south shore, keeping a clear channel on the north?—We should have a greater width of channel.

1377. Mr. *Pashley.* Here it is where the stoppage takes place. Vessels in coming to the southward sometimes wish to get over this point [*describing it*]; and they seldom can do so without throwing out a kedge or a warp: this is an objection which applies to both flood and ebb-tides.

1378. Sir *John Hall.* It appears to me that the only difference between the harbour-masters and myself is upon two points: they say 22 feet is enough for a collier, I say 25: they say 250 feet is enough passage, I say that it should be 300. We seem to me to agree on any other subject, at least according to the plan which they themselves have handed in. Now as to the quantity of ships stationed in the river; in point of fact, are not ships coming down on the ebb-tide subject to great injury from getting blocked in by the vessels lying across the stream like a turnpike-gate, and are they not obliged to anchor on the south shore?—They are.——*Q.* If a ship is coming in on the flood-tide, and setting over towards Duke's Shore, with the wind at south or south-west, when she comes into that position must she not drop a kedge to gain this narrow channel?—*A.* That must be the case: the obstruction arises from the current setting on that shore?——*Q.* Then am I to understand you to say, that if the vessels were moored on the south shore that obstruction would be removed?—*A.* That would be removed.——*Q.* Would that be so at ebb-tide also?—*A.* That would be so at ebb-tide also.

1379. Sir *John Hall.* I ask you these questions, gentlemen, because I beg to repeat that, on the part of the St. Katharine Dock Company, I have no motive whatever for pressing on the consideration of the committee anything injurious to any local interests: the Dock Company only seek to participate in what I consider to be a public interest. I now ask you another question, as practical pilots: do you, in your conscience, believe, that if this plan be adopted, it can be considered as any obstruction to the Shadwell entrance of the London Docks?—Not in the slightest.——*Q.* As a general question, are you of opinion that the plan marked (B) is to be preferred to the harbour-masters' plan which I now present to you?—*A.* Yes, decidedly.

Mr.

Mr. *Voy* examined.

1380. You said that steam-vessels were very much used for the towing of large ships, and that if the Pool could be kept clear with a 200 feet of free passage that would be sufficient?—I never said so to my knowledge; I could not have said so. The towing by steam and the drifting athwart the tide, is a very different thing.——*A Member.* He formerly said that if you had a calm, and a clear Pool, you might do with a less passage.

1381. Sir *John Hall.* I am requested to ask a question on the part of the Surrey Canal. Do you or do you not think that the plan, as now proposed, would operate as a prejudice or an obstruction to the entrance of the Surrey Canal?—It would be very much in the same degree as at present.

1382. Sir *John Hall.* I now beg to call upon Mr. Walker and Mr. Pickering. The committee will recollect, that when I last addressed them on Friday, I stated that I should be able to produce evidence in support of what I then stated in respect to some plans; and I am anxious that the facts shall be correctly detailed to the committee, and be duly entered on their minutes. I stated at the last meeting that I was indebted to Mr. Walker and Mr. Pickering in a great measure for the idea which had struck me as to the laying the ships on the south shore according to this plan. I also stated, that Messrs. Walker and Pickering had prepared a plan which I never had the honour of seeing, but by which they proposed that the ships should be stationed on the south instead of the north shore. They had also in that very plan suggested, that 25 feet should be allowed as the space for colliers to swing. This was done some time ago, and I heard from Messrs. Walker and Pickering that they had handed that plan to the harbour-master, or to Mr. Cousens, I am not positive to which of them, but the harbour-masters had the plan delivered to them, and Mr. Cousens delivered it to some gentlemen belonging to the London Dock Company; they made repeated applications for its return, but it could not be found. I would now ask Messrs. Walker and Pickering whether I have detailed correctly that which they stated to me on the occasion to which I allude?—Mr. *Walker.* Yes, you have.——*Q.* To whom did you deliver this plan?—*A.* To Mr. Cousens.

1383. Mr. *Cousens.* All that I can say about it is, that it is above seven years ago when the collier dock was first proposed, and a private plan was proposed to me and the other harbour-masters, which we declared to be crude and vague, and which could not be acted upon. Another plan was afterwards sent in to the London Dock Company, and I was asked what I thought of it; I said I believed it could not be acted upon. It was a plan for accommodating 300 sail of vessels, a thing quite impossible to be done. I left it at the London Dock-office, and I believe there it has been mislaid, for I have never been able to get hold of it since.

1384. (By Captain *Fisher.*) I believe that most of the vessels which you bring up the river go into the different docks?—Yes, they do.——*Q.* Did you ever measure the in-shore passage?—*A.* Which in-shore do you mean?——*Q.* What you have called the passage from the inner colliers up to low-water mark?—*A.* I have measured them, and have found 85, and sometimes 95 feet to the southward in the Pool where our navigation is.——*Q.* But I mean inside of the collier tiers?—*A.* But which do you mean; are you on the south or on the north land?——*Q.* I refer to both, because the same passage is required on both sides?—*A.* Ninety-five feet, 85 feet, and under 60 feet on the south shore. ——*Q.* Have you ever observed the distance between the in-shore collier, on the south side, and the Surrey Canal at low-water mark?—*A.* I cannot say that I have.——*Q.* Have you ever measured the in-shore passage from the nearest vessel of the tier to the low-water mark?—*A.* Yes, and it has not been 40 feet.

1385. Sir *John Hall.* You are now upon another part of the river; the evidence which I have given has been in relation to the north shore.

1386. Captain *Fisher.* Is this always the case that you have mentioned, this 40 feet?—Not always; sometimes it is not more than thirty.

1387. Have you ever measured the breadth of the collier tier?—Yes, some three or four times.——*Q.* What was the average breadth that you made it?—*A.* About four ships to 100 feet, on an average, and I measured several tiers.——*Q.* Have any of the other pilots ever done this?—*A Pilot.* I have done it.——*Q.* Do you agree with what Mr. Walker has said?—*A.* Yes, I think it is as near as possible.

1388. Do you not bring up vessels frequently when there is less than 30 feet in the Pool?—Yes, frequently.——*Q.* In bringing up those vessels have any accidents happened or any damage been incurred?—*A.* Yes.——*Q.* How lately has anything of that kind happened?—*A.* I cannot say exactly how lately, but I have seen them every day.

1389. *Chairman.* When you say that accidents happen daily, tell us one,—when any accident happened, and to what ship?—The other day there was an accident, by a steamboat that was towing a ship running right athwart two other vessels.——*Q.* What ship was that?—*A.* The George Barclay.——*Q.* When was that, at what period of time?—*A.* I do not exactly recollect the day, but it was some time ago; some three or four months ago. ——*Q.* But when was it?—*A.* Take it at six months.——*Q.* You say that this accident happened, near to where?—*A.* Near to Ratcliff-cross.——*Q.* How many vessels were there at that time at Ratcliffe-cross?—*A.* 23 in the lower tier.

1390. In consequence of the new plan of bringing up vessels by steam, does it not require less space to navigate the Pool than it formerly did?—No, I do not think it does.

1391. In bringing up large vessels of from 500 to 800 tons to the St. Katharine Docks, do you think it right to bring up those vessels when the tide is falling?—That depends upon circumstances; but when you get to St. Katharine Docks, ou are sure that they will

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will then take you in.——Q. But do you not think that it is attended with great risk and danger?—A. Yes, it is; it is always attended with risk and danger.——Q. In bringing up vessels when the tide is ebbing, are you not likely to meet with the outward-bound fleet going down, and do you not do so?—A. At times we do.

1392. Mr. *Cousens*. The pilots have stated to the committee, that there will be no obstruction to the vessels going into the London Docks should this plan be adopted: now the London Dock moorings are not laid down on this plan. Let me ask you, Mr. Walker, if the London Dock moorings were laid down in the centre of the river, would not they be between the tier on the south side and the north shore?—Yes, they would.——Q. Then you mean to say that that would be no obstruction to the navigation of the river?—A. None whatever.

1393. You do not mean that the moorings should lie between the stream and the shore?—They lie the same way now.——Q. You acknowledge that the London Dock moorings will be in the centre, between the tier and the north shore?—A. Yes, I allow that.——Q. And you know of course, that when ships come out of the London Docks, they avail themselves of the convenience of these moorings to haul out?—A. Yes, they do.——Q. And you mean to say there would be no obstruction?—A. Yes, I do. By the same rule look at Cherry-garden stairs, at Rotherhithe stairs, and at the west entrance of the London Docks, what obstruction is there there?—Mr. *Cousens*. Here is a large fleet of colliers, say 15 or 16 ships, laying on the south side, do you mean to say that the mooring of these ships will cause no obstruction in the centre of the river between the collier-tier and the north shore?—A. I do: I should not consider it any obstruction.

1394. *A Member*. What is the largest ship that you ever brought up the river, that has been taken into the St. Katharine Dock when the tide has been ebbing?—The largest ship that I ever brought up to the St. Katharine Dock at high water was 19 feet draught.——Q. What was the greatest tonnage?—A. 500 tons.——Q. Then you have taken your vessel of 500 tons to St. Katharine Dock when the tide has been ebbing?—A. Yes.

1395. Sir. *John Hall*. My only anxiety is, that there should be no difference of opinion; but that a question should be determined by facts. You have been asked by Captain Fisher as to the distance between the shore at low-water mark and the tiers, there being two distinct parts of the river to which these questions apply. So far as regards the ships that lie above the Surrey Canal, are the committee to understand you to say that there is never a wider passage between the innermost ship and the low-water mark than 40 feet?—I have counted 24 sail in the lower tier, and in the other three only 4 or 5; I have known the lower tier of the Surrey Canal to lie nearly athwart the London Dock buoy.

1396. Then if that tier lies so far over on the north shore, there must be more than 40 feet between the innermost ship and the south shore?—Yes, there must.——Q. Is it 100 feet on the average, or 50; or what would be the average above the Surrey Canal?—A. I really cannot say.——Q. Did you see the tier yesterday evening?—A. Yes.——Q. Did you observe how many feet there was at that time?—A. They, in fact, often lie high and dry.——Q. Did you observe the tier last night, or did you not?—A. I did.——Q. Did you observe the state of the tier then?—A. No, I did not.——Q. Concerning the passage between the innermost ship and the low-water mark, and taking it at an average, what in your opinion ought to be the number of feet to be allowed between the innermost ship and the dead low-water mark?—A. I take it at 25 feet.

1397. Mr. *Wood*. If the committee will look at the plan, they will find that there is evidence as to allowing 30 and 40 feet, which is allowed to ships at the upper side of the Surrey Canal, and as to a different allowance below that point.

1398. *A Member*. We had better confine ourselves to the evidence without going into any explanations. I believe, Pashley [one of the pilots], you have followed the business of a pilot all your life?—I have.——Q. You have piloted ships into the docks?—A. Out of the docks I have piloted them.——Q. Not into the docks?—A. Both out and in, but I in general take them out. I am allowed to take them both out and in.

1399. Which dock have you the greatest share of your business from?—I used to take them out of the London Dock.——Q. But now where do you get the principal part of your business from?—A. Out of the St. Katharine Dock; but the Company have nothing to do with me.——Q. But you have the greater portion of your business from them?—A. The whole of it is from the St. Katharine Dock.——Q. Does that apply to the whole of the pilots here?—*A Pilot*. No: I am one of those who go to the London Docks.

1400. Are there any pilots here who know the state of the river, who think that it would be as safe, and as convenient for them to pilot ships into the London Docks according to Sir John Hall's plan, as it would as the thing now is?—*A Pilot*. I do not approve of Sir John Hall's plan when he comes to Ratcliffe-cross, for then I should have to check my ship, and turn over on the other side and then come back again; when, if I have room enough, I might go straight forward.——Q. Is there any pilot here who will say that he would prefer piloting a ship into the Surrey Canal Dock under the present arrangement, or under that proposed by Sir John Hall?—*A Pilot*. I would sooner go into the London Dock than into the Surrey Canal Dock.—Mr. *Pashley*. The old plan would be better.—*A Pilot*. One is quite as good as the other.—Mr. *Pashley*. It is the clearest passage, and therefore must always be the best; and, in my opinion, for the Surrey Canal only.

1401. It has been said that accidents are of frequent occurrence; are there any persons here who have had accidents occur while piloting ships in the river in consequence of the narrowness of the passage?—Mr. *Pashley*. I have.——Q. From the narrowness of the passage?—A. From the narrowness of the passage.——Q. When did this accident happen?—I had one accident about eighteen months ago, and the other about four.——

Q. Of

Q. Of what nature was it?—*A.* One was the running into a brig and taking the mast out of her; and the other was the taking a bowsprit out of one of the sailing-barges.——*Q.* Can you tell the time; can you state the day?—*A.* I cannot state the day, but I will tell you the names of the ships; one was the Canada, and the other the Montreal, both of them large ships.

1402. Is there any other pilot that can state any accident that has occurred to him while he has been piloting a ship up the river?

1403. *A Pilot.* I have had an accident happen to me coming up the river.

1404. What is your name?—Pettley. I am part proprietor of a steam-boat, and in coming up the river, when I was off Ratcliff-cross, my vessel was driven on the southern shore.——*Q.* You say you are captain of a steam-boat?—*A.* No, I am the owner of one. My vessel was driven on the southern shore and almost stove in, and I had to jump over a barge in order to secure myself from injury, and I myself was obliged to pay the bill for the damage done to my vessel; her figure-head was carried away, and we nearly lost her funnel.——*Q.* And you had nothing to blame for this but the narrowness of the river?—*A.* The narrowness of the river, and the bad management of those who have the conduct of it.——*Q.* But do you attribute this to the misconduct of any one in any shape?—*A.* I attribute it to the bad management of the harbour-master, and to his not doing his duty as he ought to have done it, and by not laying the ships in a proper manner in the different tiers.

1405. Did you know the actual width of the river at that time?—I know that it was not wide enough.——*Q.* Do you know what was the actual width of it at that time?—*A.* In such a scene of bustle and confusion as that was, it was not likely that any one would be able to take much notice of what was the width of the river.——*Q.* Therefore you could not say whether there were 300 or 400 feet, or 250?—*A.* No, I could not.——Sir *John Hall.* But you know that it was this tier that was the cause of the accident?—*A.* It was Ratcliffe-cross tier that was the cause of the accident.

1406. Sir *C. Marshall.* I wish to give these gentlemen the opportunity of looking at the various plans now on the table, and to ask them whether it is their opinion, from the plans now before them —— *Chairman.* What is it you wish to know, Sir Chapman; which of the plans they like best?—Sir *C. Marshall.* I wish to know which of the plans they conceive to be preferable.—*Chairman.* Why, Sir John Hall's, to be sure.—Sir *John Hall.* Now, gentlemen, I do beg that the chairman will not take upon himself to interfere in this unwarrantable manner; for, with every possible degree of respect for the official situation in which it has pleased the Port of London Committee to place him, it is his duty to conduct himself impartially, and not to make observations that may have the effect of warping the judgment of others, and I do protest —— *A Member.* I certainly must rise to order. I do not think that our worthy chairman has in any way misconducted himself, and that he must have been misunderstood by Sir John Hall.—Sir *John Hall.* If I have misunderstood any expression that fell from the worthy chairman, I beg to apologize.—*Chairman.* I am not aware that I have in any degree misconducted myself. The Port of London Committee will be able to judge whether I have so done or not. The pilots have said, over and over again, that the removal of the ships to one side of the river is a better plan than the other; and am I to be called to order, in the loudest possible tone that Sir John Hall can use, for having stated that which is the fact.

1407. *A Member.* I now beg to ask the pilots which of the plans they do prefer?—Sir *C. Marshall.* I am in possession of the chair, and I beg to put the question; but before doing so, I beg that all the parties who have given evidence will look at the plans which have been put in. A little consideration is requisite, and I am sure the committee will wait with great pleasure. I do not ask the gentlemen to speak off hand, but I ask them to favour the committee with their opinions as to which of the three plans that have been proposed is the most eligible.—*A Pilot.* I think the plan to the southward.

1408. Sir *C. Marshall.* Are the committee to understand from the pilots in attendance here to-day, that it is their opinion that, of the three plans before them, the plan for mooring the vessels on the southern shore is the most eligible; is that to be the answer?—Mr. *Pashley.* Certainly.—Mr. *Voy.* There are certain deductions to be made from it: it all looks very pretty, at present, as it lies before us.

1409. *Chairman.* Do you differ from the opinion that has just been given?—Mr. *Voy.* In regard to certain things, I do. If on this new plan everything is kept clear from Ratcliffe-cross downwards, in my own opinion, from very long experience, you will then have the best plan. Some of the tiers in that part of the river must be removed, and all the vessels riding at Duke's Shore, from Limehouse-hole to Ratcliffe-cross, must be put out of the way, and then there will be a direct set of the tide straight on.—Sir *John Hall.* You think these tiers should be left out of the plan?—Yes; and then you have got the whole of the shore to work the ships up.

1410. (By Captain *Fisher.*) Will the London Dock Company have as great a facility in taking vessels into their docks, according to Sir John Hall's plan, as they have at present?—I should say equally so. If I go up according to this intended plan, with the wind at north-west, I have my object right in view; but according to the old plan it would take me three-quarters of an hour to heave over here [*describing it on the plan*].

1411. Does not the wind blow from the south-west, and the west-south-west, for nine months in the year?—That is the prevailing wind, certainly.——*Q.* Does not that then make it a lee-shore?—*A.* We must chance all these things; it all depends upon the draught of water.

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1412. Is it not likely that vessels coming out of the London Dock, and coming up, crossing each other in the river, will be an obstruction; and that vessels will be prevented from going into the dock or from passing up the river?—Certainly; but then the only way we have to do is to accommodate each other; we must do as coachmen do with their carriages in the street: let the pool be ever so clear, it cannot be done without we accommodate one another. It is in fact like going into a play-house; when the doors are opened, it is a chance if by a crush any of you get accommodated, but by waiting a little time and having patience all may get seats.——*Q.* And the principal part of the confusion arises from that, does it not?—*A.* It does; and if the place is very narrow, the most serious consequences are likely to occur. I, for my own part, would sooner wait an hour, or stop a whole tide, than get into any mischief.

1413. Supposing that one or two vessels are obliged to drop their anchors in coming out of the dock, is it not likely that other vessels will follow their example in coming up, and that all will drop their anchors?—If I am on the plan that is now proposed, I must know how I am to have the wind, for that is a very material thing: do you give me a calm, or do you give me a south-west wind? If I go up with the wind to the south or to the south-west, I am on the north shore: if I see a vessel coming out of the London Docks, I heave the ship round, and stop till that vessel is got out: if I find I cannot pass before she will get out, in such a case I am in duty bound to stop until she is out.——*Q.* During the flood-tide, when vessels are coming out of these docks, are they not likely to come in contact with you?—*A.* Certainly, if you do not accommodate one another. If a vessel is coming out to go down, and she is drawing 11 feet water, I allow her to come on the north shore, and I run to the nearest tier until she has passed by me. If she has more water than I have, I endeavour to check my ship, and give her the best part of the channel: even if she draws less water than I do, I would rather stop on the buoys and let her go by; for it is better to do that than get into mischief.

Mr. *Walker* examined.

1414. When these tiers were blown over, what way was the wind?—Which tiers do you mean?——*Q.* I mean those tiers which you have stated stood so far over the navigation that it was very narrow; did it blow strong at the time?—*A.* The wind was easterly. ——*Q.* Did it blow hard?—*A.* It was not a very strong wind.——*Q.* Was it likely that they were set over by the tide or the wind?—*A.* Not by the tide, for that was setting to the southern shore.

1415. Do you recollect the months of January and February in the last winter?—Not particularly.——*Q.* Do you recollect the weather during that time?—*A.* It was blustering weather.——*Q.* Do you recollect during those two months there was hardly a night that a collier brought her anchor home?—*A.* They did not give them sufficient scope of cable. ——*Q.* Did you, during that time, ever see colliers lying with their anchors a-head?—*A.* The tide will do that, when there is no wind at all.

Mr. *Voy* examined.

1416. You said you approved of Sir John Hall's plan, provided three of the tiers were removed?—*A.* The lower tiers.——*Q.* That is towards the eastern part of the river?—*A.* Towards the eastern part.

1417. This would reduce Sir John Hall's to 126, taking off 24 vessels. Be good enough to look at Sir John Hall's plan, and you will find that opposite to Church-hole stairs he has a tier more than is laid down on the harbour-master's plan: in Sir John Hall's plan there are five tiers; am I correct?—Yes.——*Q.* Look at the harbour-masters' plan; how many are there there?—*A.* Four.——*Q.* There are 14 vessels in the five tiers of Sir John Hall: is there any objection to laying a tier of vessels opposite Church-hole stairs, as laid down in Sir John Hall's plan?—*A.* Not at all.——*Q.* If then we lay down 14 vessels, added to the 170 to be found on the harbour-masters' plan, we shall get 184.—*A.* Another tier will be very good there; it will never be in the way at all.——*Q.* You have no objection to another tier there?—*A.* Not at all.——*Q.* That would add 14 vessels more to the number of vessels on the harbour-masters' plan?—*A.* Yes, it would.

1418. I think you have acknowledged that the wind blows two-thirds of the year from the south-west?—Yes.——*Q.* You say when the wind blows from that quarter, it would be much better to have the old plan for getting into the London Dock than the proposed new plan?—*A.* With a southerly wind, it would be better. I think that were the new plan carried into effect, it would produce a greater convenience to the London Dock than they now enjoy. The new plan would be equally as good for vessels coming up and down the river. If I was coming up with the wind in the southerly direction, the ship would go through of herself, that is if I was going to the north-west of all the tiers; but I must understand whether the plan is to be altered, or whether the Pool is to be left as it is now; I could go as well up then as I can now, by going to leeward of all the ships. I could go into the London Docks just as well then as I can now.

1419. You stated to Captain Fisher that it was quite the reverse?—I stated that the plan might be altered, or that I must know how it was to go up. If I am bound to the London Docks with a southerly wind, the ship would blow there herself. If I am going up the new channel as it is proposed to be made, I can go to the north side of all these ships; she would blow in just the same as she would in the other channel.——*Q.* Then there is no danger arising from the southerly wind blowing her on shore?—*A.* If there was any

danger

danger arising from her blowing on shore with a southerly wind, a ship must be 100 degrees more east before she could be hauled in on the northern shore. If she was blown on the southern shore she could not be hauled in, for she is thrown over; that is one of the most material things; for the best of pilots, or the best of masters, may be caught at high-water mark, and you cannot help it.

1420. Sir *John Hall.* Then your opinion is, that the north shore is far better for navigation than the south shore, provided the ship should get ashore?—Most undoubtedly.——*A Member.* From the want of a south-west wind?—*A.* I do not care how the wind is: if a ship goes on shore on the north shore, that has been proved by experience to be a regular flat.——*Q.* Is the facility of approaching the docks greater according to the old plan, or according to the new, when the wind is at south-west?—*A.* If you average it, it is as well one way as the other.

1421. Mr. *Pashley.* That is not the opinion of all of us. I would much rather go up with the new plan than the old one; because with the southerly wind I have such a difficulty in getting to windward.

1422. Sir *John Hall.* Has it occurred to you to be obliged to stop ships in Limehouse Reach in consequence of the crowded state of the Pool, and to be compelled to wait until nearly after high-water?—Very often.——*Q.* The reason of ships coming up on the top of the tide arises from the crowded state of the Pool?—*A.* It arises from the Pool being so full, which cannot be helped at times, owing to strong wind and tides. Vessels must have time to drive and get clear of each other; this obliges parties to stop in Limehouse Reach.

1423. *A Member.* Have you had any accident within the last three years?—I have not: but I have had many very narrow chances to come through.——*Q.* What length of time is it since you met with any accident?—*A.* It is six or seven months ago; but then it was a little damage, amounting to 20*l.* or so.

1424. Captain *Fisher.* Have you ever, when bringing vessels up the river, passed ships at Blackwall when the tide was at high-water?—I think I have, but the Pool has not been full then, although it has been a flood-tide; but I am not going to attribute this to any fault to be attached to the harbour-masters.

1425. In bringing vessels upon the tide in passing Greenwich, is there not a great risk in towing vessels up to the St. Katharine Docks?—There is not, if there is much water. ——*Q.* Are you not likely to meet with the outward-bound fleet?—*A.* Yes; but in that case men of judgment wait until they have gone by: it is the judgment that is half the battle.

1426. You are aware that by-and-by, when the shoals shall have been cleared away, there will be no occasion for pilots?—I suppose so; I wish there was as many shoals again.

1427. *A Member.* When the vessels are moored, and the wind blows from the north, how many feet will the vessels be blown on the south side?—If they are slack moored it will be as much as four or five feet.——*Q.* If the wind blows nine months out of the twelve from the south-west, supposing the plan of Sir John Hall to be adopted, will not that narrow the water-way so many feet?—*A.* No; I should say it would widen it.

1428. You propose to moor the vessels on the south side?—I do not care where you moor the vessels; the grand object is the boundary vessel. Where you have five tiers lying in the Pool, and four of them lying clear and regular with 10 vessels in a tier, if the other tier had 13, that one tier would make a bad pull; if it is not all clear and regular it will never be worth anything until the boundary vessel is removed.

1429. Mr. *Cousens.* Can you inform the committee whether in Sir John Hall's plan he has provided accommodation for 15 or 16 ballast vessels?—I see that in his plan he has provided for the removal of all the obstructions created by the ballast lighters at Ratcliffe-cross.——*Q.* In this plan is there any place provided for ballasting the ships when they are empty?—*A.* I do not see any.

1430. Sir *John Hall.* My answer to that is, that one of the greatest obstructions arises from ships being permitted to lie at single anchor, for the purpose of taking in ballast. I have inserted a clause here, that no ship shall be permitted to take in ballast or discharge her coals in that part of the river higher up than Cuckold's Point, under a penalty of 10*l.*: they may take in the ballast, but must not stop the navigation.——Mr. *Cousens.* There is no place here pointed out for ballasting the ships.——Captain *Fisher.* We get the ballast in the old and usual way. The vessels haul out of the tier, they do not anchor in the channel, but by going on one side of the stream they leave a free passage for vessels to go up and down.

1431. Sir *John Hall.* I appeal to every one of the pilots now present, whether this does not constitute one of the greatest obstructions and impediments that the ship-owners and pilots have to complain of?—*A Pilot.* Certainly, it does.——Q. Is there not room sufficient to lie in between the tiers for the purpose of taking in ballast?—*A.* Certainly there is.

1432. Mr. *Cox.* How many pilots are there present who subscribe to the evidence which we have just heard?—Sir *John Hall.* Fifteen; and I believe you, all of you, state to the committee, that your opinions are founded on an examination of the plans and the comparative merits of each of them. *A Pilot.* Certainly.——Mr. *Cox.* How many licensed pilots are employed in bringing ships up the river?—Sir *John Hall.* Eighty.

1433. Mr. *Robinson.* I wish the committee to be informed if five tiers of vessels were laid between the Queen's dock and the Horseferry causeway, and you went clear to the northward, whether it would not be likely that some vessel inside would take the ground at high water?—Surely.——*Q.* What would be the effect if any of them took the ground?—*A.* That there would be damage done.——Sir *John Hall.* Would it not have the same

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effect on the north-shore tier, as they now lie, if the wind was from the south-west?—*A.* Most assuredly.——*Q.* If moorings were laid down in proper situations, and there were dragging-pullies on shore, so that the in-shore ship should lie afloat at low-water mark, would not that obviate the difficulty?—*A.* So long as she was afloat it would be all right.

1434. Sir *John Hall.* As it is my anxious wish to give the committee every view that can be taken of this matter, I beg to call Mr. Colley, the master of the Comet steamer.

Mr. *Joseph Colley,* called in; and Examined by Sir *John Hall.*

1435. I believe you command the Gravesend Comet steam-boat?—I do.——*Q.* You have had a good deal of experience in the navigation of the river Thames?—*A.* I have.——*Q.* Have you turned your attention to the different plans produced, as to the mooring of colliers in the Pool?—*A.* I have.

1436. In your judgment, looking at the plans produced by the harbour-masters, the London Dock Company, and the St. Katharine Dock Company, which of those do you consider preferable as an improvement on the present system?—The plan marked (B), decidedly.

1437. You have had a good deal of experience in the navigation of the Pool, and I will ask you one general question; what is your opinion as to the room that ought to be allowed for the mooring of each vessel in a tier; how many feet?—I should allow nothing less than 25 feet.

1438. As a practical man, going up and down the river two or three times a day, is there ever more than 40 feet water in-shore on the north side?—I cannot speak as to that, I was never inside there more than once or twice; and then I found it very narrow.

1439. So far as regards the general plan, do you think that the channel of the river ought to be narrowed from 300 feet, or that 300 feet ought to be kept?—It ought to be kept, decidedly.——*Q.* You think that less than 300 feet ought not to be kept?—*A.* Certainly not.——*Q.* You think that it would be an injury to the commerce?—*A.* Certainly.

1440. Do you not think that the laying of these ships on the south shore would have the effect of affording a very great protection to persons going up and down the river in small boats?—Certainly; they would then not be run over as they very often are now.——*Q.* The swell occasioned by the steamer would be broken by the tier of ships, and would not come in collision with the small boats in the main channel?—*A.* Certainly not.

1441. What is the state of the Pool generally, as to its width, in going down and coming up?—It is so narrow that I am frequently obliged to have recourse to the fender.——*Q.* What is the length of your vessel?—*A.* One hundred and thirty-eight feet.——*Q.* Is this a frequent occurrence?—*A.* It has not been so frequent for the last two or three months.

1442. The coal-owners have not brought their ships so much into the Pool as they used to do?—No; they now lie off Greenwich, and other places.

1443. If the colliers had come up in the same number as they did formerly, the Pool would have been in the same state as it used to be?

1444. *A Member.* I object to this sort of examination.——Sir *John Hall.* You are about to determine what shall be the legislative regulations to govern the river at future periods. If I show you that, from circumstances of a temporary character, the Pool is in a better state than it usually has been, the inference is, that you will do right to provide against the exigency and contingency which I allude to.

1445. Is it a fact well known, that the number of colliers in the Pool have not been so numerous within the last two or three months as heretofore?—They can hardly find room there now at low-water.

1446. *A Member.* You command a steam-vessel?—I do.——*Q.* What is her draught of water?—*A.* Five feet.——*Q.* Did you ever command any other vessel—*A.* No.——*Q.* All you know is, that you command a steam-boat which draws five feet water; that is the whole of your experience?—*A.* I have been in the habit of going up and down the river in all kinds of craft.

1447. You say that you wish a channel of 300 feet to be preserved, and that nothing less will do?—Certainly, I do.——*Q.* Would you not prefer 400 feet?—*A.* Certainly; I should be glad of all I could get.

1448. Mr. *Hale.* Do you not think that the man who depends for his living on his manual labour will not look to the advantage of the tide, or that he will like to be driven into the slack water?—For safety I should think he would.

1449. Sir *John Hall.* Every body acquainted with the river knows that the steam-boats follow the smaller craft, even into the inner channel, where they come in contact with them.

1450. Captain *Fisher.* You say that 25 feet ought to be allowed for the breadth of a collier in a tier?—I think so.——*Q.* Did you ever measure a collier?—*A.* I never did.——*Q.* Then how can you state that?—*A.* I judge of it merely from my own judgment, or matter of opinion.——*Q.* Not from any measurement or practice?—That is so.

1451. Are not the colliers detained at Gravesend in consequence of the large number of colliers collected below the Pool being prevented from getting into it?—I do not know.

1452. You, for your own part, would like to have as much room as possible?—Certainly I should.——*Q.* If all the ships were out of the river, it would be all the better for you?—*A.* I should think so.

1453. Mr. *Bridge.* How long have you been captain of the Comet?—Twelve months since, last March.——*Q.* Have you been on the river in any steam-boat before?—*A.* Yes, for

for 10 ten years.——*Q.* Have you made any observations as to the width of the navigation before?—*A.* I have looked at it frequently.——*Q.* And sometimes you have found impediments?—*A.* Sometimes very great impediments; sometimes there has not been more than 70 to 80 feet width, and at other times there would not be more than 20 ships in the Pool altogether.

1454. What would be the average width of accommodation generally?—The average accommodation has not been more than from 100 to 120 feet.——*Q.* What do you suppose to have been the greatest you ever had?—*A.* I have seen not more than 20 ships in the Pool altogether, and I have seen brigs working up from one shore to another tacking about.——*Q.* If you had double the quantity of width you have usually had, would you then have a sufficient quantity?—*A.* I should say not, allowing for the other craft to go up and down.

1455. If for many months in the year the average has been 120 feet, do you not think that double that quantity would be quite sufficient?—No, I do not.

1456. Do you not find that the coal-barges are a greater obstruction to you than any other description of craft?—The abuse of the men is a much greater obstruction generally than that of the craft themselves.

Mr. *Charles Watkins*, examined by Sir *John Hall*.

1457. How many years have you been acquainted with the river Thames?—Twenty-five years.——*Q.* You have been employed in navigating and transporting ships, although not a licensed pilot?—*A.* Yes, I have been licensed.——*Q.* Then how did it happen that a man of your experience should lose your licence?—*A.* I was not considered eligible.——*Q.* What was the ground of your want of eligibility?—*A.* My not having been the master of a ship.

1458. Will you have the goodness to state to the committee what, in your judgment, you think ought to be the allowance for each ship lying in a collier tier?—From 23 to 25 feet.——*Q.* But not less?—*A.* No; and in the way that they moor them now you may take four feet off of that for the fender.——*Q.* Would you think 25 feet too much?—*A.* You cannot allow much less.

1459. As to the passage in-shore, looking to your experience in passing up and down the river, what do you consider to be the space between the innermost collier on the north shore and the low-water mark of the river?—I have seen 100 feet, and sometimes not 50; I do not think there was 40 yesterday.——*Q.* What time of the tide was it when you went down?—*A.* About half an hour after low water.——*Q.* Did you see a barge lying nearly on her beam ends?—*A.* She was afloat before I got there.——*Q.* What was the width between the innermost ship and low-water mark?—*A.* About 100 feet.——*Q.* Did you particularly observe the lower tier?—*A.* I did; but I had not time to count the ships, for I had a ship on shore, and I was obliged to go down and fetch her up.

1460. Now I ask you, as a practical and experienced man, whether you think that the channel, which ought to be kept by law at 300 feet, should be diminished to 250 feet?—Not in the least.——*Q.* You are of opinion that the 300 feet ought to be preserved?—*A.* Yes, decidedly.

1461. Have you looked at the plans put in by the St. Katharine Dock Company, by the harbour-masters, and by the London Dock Company?—The two latter I have not seen until the present time.——*Q.* But do you think you are able and competent to form any judgment in respect of the comparative merits of these plans?—*A.* This plan, marked B, has been in my own mind for many years; and I have heard a similar one suggested by many of the pilots. It was always considered by them that the best and safest plan would be to moor all the ships on one side of the river, and I concur in that opinion. I am perfectly satisfied, that if the harbour-masters had to pay for half the damage we have had to pay for, they would never have laid the ships as they have done.

1462. Mr. *Hale*. When boats or other small craft have got the tide in their favour, is it likely they will row in the slack water?—Decidedly not; they will always row in the stream: you would not like to go against the stream yourself.——*Q.* My question to you is, whether on the going up of the tide you go with the stream or without: is it likely you would go in the slack water?—*A.* We go on the edge of the tide as far as we can. If this plan be carried into execution the lives of His Majesty's subjects will be in safety, which is not now the case.

1463. Captain *Fisher*. I believe you are the owner of the steamer called the Monarch?—In part I am.——*Q.* Do you not tow vessels to the St. Katharine Dock now and then?—*A.* Sometimes to the London Dock, and sometimes to the St. Katharine's.——*Q.* I suppose that they are very good customers to you?—*A.* I do not know that they are; we are employed generally by all the docks: we show no favour or affection to the one more than to the other.——*Q.* Have you ever moored any colliers?—*A.* I did not say that I had moored any colliers: why do you not attend to the statement that has been made?

1464. Mr. *Cousens*. Look at Sir John Hall's plan, marked B, and I will put a question to you as a ship-owner. With a gale of wind at the north-west, how should you like your ship to be lying there [*pointing to the position on the plan*]?—Not at all, nor would you either.——*Q.* Or would you like to see your vessel there [*pointing to another place*]?—I should like to see you there a little oftener than you are.

1465. Sir *John Hall*. I have no other witnesses to offer on this part of the subject; and I am now in the hands of the committee as to what further course I shall pursue. I handed

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in certain proposed suggestions or amendments to be made in the printed bye-laws; and if it be the pleasure of the committee I will now go into that part of the case.

1466. *Chairman.* The idea of the committee with regard to the business to be done was this, that after hearing Sir John Hall fully on this question, and all the witnesses that he thinks proper to produce in support of his view of the question, we should then hear the other side who are opposed to him.

1467. Sir *John Hall.* But I have not yet closed my case. I wish to put the committee in possession of evidence which goes to show the necessity of altering some of these printed bye-laws. I have delivered in my objections, but I have not made any observations whatever on them.

1468. Sir *C. Marshall.* We have not yet been put in possession of the proposed alterations or amendments.—*A Member.* If we understand them that is all we want, if we do not, then we can go into evidence.

1469. Sir *John Hall.* If I suggest any alterations in the printed bye-laws and regulations, which occur to the St. Katharine Dock Company as fit to be amended, some of them being in direct contradiction to one another, and which cannot be carried into effect, I should have thought that you would have been thankful to the St. Katharine Dock Company for calling your attention to those portions of your laws that require amendment. A copy of my objections was annexed to the memorial that was presented to the common council.

1470. Sir *C. Marshall.* The committee have never had any portion of these objections laid before them.

1471. Mr. Alderman *Thomas Wood.* I was restrained from making any observations on them.

1472. Sir *C. Marshall.* I think that now is the time when we should go into the evidence on the other side. You may recollect, that at the opening of the case that was understood to be the course that should be pursued. Sir John Hall has gone through his evidence, and now let us hear what the other side have to say. As to the amendment to be made in the bye-laws, that is a subsequent consideration.

1473. Sir *John Hall.* A great number of the alterations which I have suggested in the bye-laws are contingent upon the alteration of the plan, and unless you hear the whole of the case now, you will have heard only a part of it. Am I to understand it as the pleasure of the committee, that any observations I have to make on the bye-laws should be deferred for the present, or will they permit me to go on?

1474. Mr. *Bridge.* What possible objection can there be to our now going on with the evidence on the other side?—*A Member.* There are several gentlemen on the opposite side of the question who wish to give evidence, and if you allow this opportunity to slip, they will not be able to attend you again.

1475. *Chairman.* I consider that, having heard the statement and the evidence of Sir John Hall, the best and most judicious course we can pursue is to hear what the gentlemen on the other side have to say. Are there any gentlemen here who cannot attend to give their evidence on another day?

1476. Mr. *Henry Lambert.* I am afraid that I cannot; for I am about to leave London to-morrow.—*Chairman.* Then we will hear Mr. Lambert to-day.

Mr. *Henry Lambert* examined.

1477. *Chairman.* Pray what are you, Mr. Lambert?—I am a ship-owner, belonging to Sunderland.——*Q.* Have you ever been a captain of a ship?—*A.* Yes, for 31 years.——*Q.* Sailing to the port of London?—*A.* Yes, and no where else.

1478. You have seen the plans which have been put in, and you have heard the statements that have been given relative to the proposed alterations, and as to the necessity of preserving 300 feet in the channel: give us your opinion upon this, confining yourself in the first instance to the width of the river?—The Pool has generally been rather narrower than we should like, owing to the quantity of ships that have been in it; but my opinion is, that if the ships were laid to the northward, it would tend to a great deal of inconvenience, and a great deal of damage.——*Q.* You mean if the passage is to the northward?—*A.* If the passage is to the northward, and the ships are laid to the southward, the channel will be on the north side, and that will tend to very great inconvenience; especially to the ships that are loading in the Pool.——*Q.* Will you state why?—*A.* The prevailing wind is generally from south to south-west. The ships leaving the Pool, which have to go to leeward, will fetch down not so far as the Regent's Canal, where there is not 13 feet; they will let go there, and in about an hour or so there will not be room for even a boat to pass. When the wind is from the west, they must either get down to Limehouse-reach or they must drop their anchors. If ships are sailing down from the Upper Pool, they will not be able to get further than the point I have mentioned, and then they will get into difficulty; and before it is high water there will not be room for a boat, much less a free passage for any craft.

1479. Which way do you take the wind to be?—I do not care which way the wind is. If the wind is to the north-west she can haul to windward, and can go between Cuckold's Point and the other ships. When she gets into Limehouse reach she bears away and goes down below with the wind.——*Q.* Do you know anything about the depth of the water there?—*A.* I have let go in almost all the tiers, and we have generally been aground at about 24 feet.

1480. Did you hear Captain Bullock's evidence?—I did, and was much pleased with it; for he seemed to say, that if the harbour-masters would not allow us to come into the Pool,

Pool, that we might then deliver our cargoes at Greenwich or Blackwall, which would be a great accommodation to me.

1481. You think, as a practical man, that it will be a great inconvenience to have the ships all on one side of the river?—I think so; for the light ships being rather frothy they fall to leeward, and if it blows hard you could not haul them out.

1482. So long as colliers and coasting vessels can come to the port of London, the plan of the harbour-masters is preferable to that of Sir John Hall's?—Decidedly.

1483. Have you found much inconvenience from want of depth in the Pool?—Never. I have been in the habit of coming into the Pool with a vessel drawing 15 feet, and sometimes we have taken the ground, and no warp that we had would bring the ship up; the only remedy that we had was to let the vessel swing.——*Q.* You do not suppose that a warp would bring you up when there was a strong easterly wind blowing?—*A.* If it be a strong easterly wind we generally turn round in Cuckold's Point, or let the vessel come to the ground and swing round.

1484. (By Sir *John Hall.*) If I understand you right, the objection you have to the plan of mooring ships on the south shore arises from the circumstance of the light colliers running down?—It matters not whether the collier be loaded or not.——*Q.* It is not very usual for loaded ships to run down over the tide if there is not a fair wind?—*A.* Nor for light ships either.

1485. If a vessel is running down with the wind at south-west, when she has arrived somewhere opposite Stone-stairs or Ratcliffe-cross she would stop, because she could not go about, and would remain there until it was high-water?—Not till the tide came.——*Q.* Take the case of a ship coming up the Pool with the wind at south-west; how far could you get down Limehouse reach before you must bring up?—*A.* We should have sufficient time to bring up so as to get clear of the damage.

1486. Am I to understand you to say that with the wind at south-west you can get down to Cuckold's Point; or that you are not obliged to bring up and wait for the next tide?—No; we fetch round the other point into Limehouse-reach.——*Q.* How far into Limehouse-reach can you fetch round Cuckold's Point with a south-west wind?—*A.* By keeping close in the shore I am enabled to weather these tiers, and by so doing we get into plenty of room, where the rest of the ships let go their anchors.——*Q.* What is to become of the ships that are coming up?—*A.* The ships that are coming up with a south-west wind can let go their anchors, and if there is a flood-tide they have their head put about to the south-west.——*Q.* But you are supposing that the ships have got through that narrow channel, which is the very difficulty we complain of?—*A.* We can get through there at any time.

1487. All I want to get at is the fact. Do I understand you to say that, if the vessels are laid on the south shore, a ship with a south-west wind would not be able to proceed beyond Ratcliff-cross, and that the difference is, that if the tiers remain as they are, the vessel would reach some 300 or 400 yards further, say Limekiln Docks or Duke's Shore?—Yes.——*Q.* And there she forms an obstruction to the ships coming up?—*A.* There is room there for 500 sail.

1488. Does not the flood-tide set in to Duke's Shore?—So does the ebb-tide.——*Q.* If you anchor your ship on the north shore, precisely in that state of the tide which sets off that shore, does not your ship offer an obstruction to any vessel wanting to get into the narrow channel?—*A.* I am sure to get to leeward of the tier: if I sail along down here as far as I can, I get into the reach, and keep out of the way of the ships that are coming up.

1489. Did you ever tell the committee that ships do not drop their anchor without Cuckold's Point?—Sometimes they do.——*Q.* I ask you whether, in point of fact, ships do not more frequently when the wind is at south-west hug the south shore, drop their anchor, and stop for a tide, than run down and go to leeward?—*A.* They do do so.——*Q.* If they do so, do not they form an obstruction to ships which have to go along the south shore?—*A.* When the ships sail down they get into a space where there is room for 500 sail.

1490. Do you mean to tell the committee that there is room for 500 sail of ships between Ratcliffe-cross lower tier and the part where, if the wind be at south-west, you can drop your anchor?—*A.* There is room for a great many.

1491. You say, that whenever the commander of a light ship is coming down with the view of going away, with the wind to the south-west, that he hugs the south shore and drops his anchor there, in preference to going on Duke's Shore?—He does; he stops there.

1492. Are you acquainted with the Memorial that was presented by the Coal-trade, some three years ago, from Sunderland, Newcastle, and South Shields?—I am not.

1493. Do you agree that if accommodation could be given for 200 sail of colliers, without interfering with other trades, that it would be sufficient to answer the purposes of the trade?—If we could lie as well as we do now, I should have no great objection. We are regulated by the harbour-masters, who attend to the duty in turns, and tell us where the tiers are; they measure the ships, and we do our business very well. I have nothing whatever to do with the London, the St. Katharine, or any other docks.——*Q.* If accommodation could be found for 200 colliers, do you think that would be sufficient to suit all the purposes of the trade?

1494. *Chairman.* We shall never get on in this kind of way. He says that the plan of the harbour-masters is a better plan than yours, and he has stated the reason why.

1495. Sir *John Hall.* I apprehend that in all cases the materiality of the evidence of every person must depend on the degree of credit due to the parties. This gentleman has

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said, that when the wind is at south-west they can find accommodation for 500 ships, or a greater number, below Ratcliffe-cross: the question I am now coming to is, what number of ships the coal-trade require for their accommodation?—I think the coal-merchants require a certain number of vessels to do the business of the coal-trade, and the harbour-masters order a certain number into the Pool; as many as they can find room for.

1496. Supposing the coal-trade are of opinion that 200 ought to be accommodated, and that the harbour-masters can only accommodate 170, do you consider that the plan of the harbour-masters is an eligible one?—The harbour-masters can order 100 up one day, and 100 the next, if they think proper.

1497. *A Member.* After the elucidation which Sir John Hall has given of his plans, have you altered your opinion, or do you still think that the harbour-masters' plan is better?—Decidedly: I hope Sir John Hall does not want all the room for himself.

1498. I simply wish to know whether you have altered your mind as to the opinion you gave?—As a sailor, I conceive that ships being brought to the southward will do a great deal more damage than you are aware of.

1499. Sir *John Hall.* If there is water enough for the ships to lie in-shore, and if the tier is made on the south shore, what injury will the coal-trade derive from that?—A very great deal; you cannot go to the leeward of these tiers, as I have explained before.

1500. *A Member.* We have evidence that ships do go on shore, and that obstructions exist on the other side.

1501. Sir *John Hall.* This gentleman states as his opinion, that when a ship is coming up which draws 15 feet water, there is no rope in the world that will hold her if you wanted to sheer her?—I said no rope that we had: if you get a six-inch warp, that will not bring her up.——*Q.* Provided you sheer her, it will?—*A.* You cannot sheer her; your anchor is all that you have to depend upon. Sometimes we have more handy men in the boats than at others, and you may get a six-inch warp fastened to the boat; but as soon as we come to Cuckold's Point we drop our anchor.——*Q.* You do not seem to pay any attention to the rope slipping from her mooring-craft by which you might make it fast, and so on to the next, and thus follow the ship up?—*A.* If the rope checked your ship, and brought her round, you would go athwart-hawse, unless you let go your anchor.——*Q.* But the rope would take the angle from the outward part of the tier, and would bring the vessel up.——*A.* If the rope broke she would go on shore.

Mr. *James Ballantyne,* called in; and Examined.

1502. How long have you been master of a ship?—For 23 years.——*Q.* What sort of a ship?—*A.* A collier of 300 or 400 tons burthen. I have also commanded vessels in the Baltic and American trade.

1503. You have heard a great deal to-day on the subject now before us; will you be good enough to favour us with your opinion, and tell us whether you differ from Mr. Lambert, or whether you agree with him?—My ideas are precisely the same as Mr. Lambert's. In going out of the Pool with a south-west wind, or west-south-west, we hug the south shore against the flood-tide for perhaps an hour, and by the time we get to Cuckold's Point it is ebb-tide: the light ships can go over that part of the stream which the loaded ships cannot get into. The next thing is, that if you go out of the Pool with the same wind, the wind drives you to leeward, and boats, barges and everything else are driven on the lee-shore; this would cause more mischief, in my opinion, than has ever been before. I prefer the harbour-masters' plan. With regard to the saving of the lives of His Majesty's subjects, there is a slack tide here, into which the small boats can come inside these ships, where there will be no motion felt, and there will be no chance of barges being loaded on that side.

1504. During your experience in the port of London, did you ever meet with any serious interruption from the narrowness of the channel?—Never. For 23 years I never had 23 *s.* worth of damage done.

1505. Sir *John Hall.* Do you agree with the last witness, that ships bring up at a certain point, and stop for the tide?—They do so, because the loaded ships cannot come there, on account of the shallow preventing them. When the tide is setting strong, it invariably sets into this bight, where it scours the bed of the river, and keeps the ships afloat; that is the deep-water side of the river. There is a similar thing to be met with in the harbour of Sunderland, where sometimes ships have not been able to get in for a month, owing to the place having been nearly dried up.

1506. Does your observation apply to vessels coming up with a south-west wind?—With a north-west if you like.——*Q.* Take it to be a south-west wind, how is it that ships get out at the ebb-tide from the north shore, so as to gain the south channel?—*A.* Certainly, they do not.——*Q.* Is not this, which I am pointing to, a straight line?—*A.* That is the very reason that they take advantage of the tide. When you have a flood-tide, with the wind at south-west, you may drive down, and sheer over to windward.

1507. Look at this plan of the harbour-masters. Suppose that it was calm, would any ship drift in the stream, with the flood setting in, where I am pointing to?—No; and that is the reason we want to get down below there. There is a general rule in the Pool, that a ship sailing there is considered to be liable to damage.——*Q.* But he is obliged to have canvass set, to carry her across the tide?—*A.* He may have a main-topsail set, but very often we let go the anchor instead of setting any canvass.

1508. Have you ascertained the general average of the tiers, taking the larger with the smaller vessels?—In the Mill-hole tier we lay 20 ships.

1509. But I mean what is the room for each ship?—Eighteen feet. I have heard it said to be 25 feet, but that I deny; for a 25-feet boom is sufficient to bring a vessel up: does any gentleman know the width of a coal-barge?—*A Member.* From 14 to 16 feet.—I know that it will not require more than 18 feet, because the barge which goes under the ship's stern just fills up that space.——*Q.* Then if the harbour-masters are of opinion that 22 feet is requisite, they are wrong, and you are right?—*A.* I will give any gentleman a 5*l.* note who, by measuring, can make it 25 feet.

1510. Sir *John Hall.* You misunderstand. The statement is, that the space to be allowed for ships moored in tiers as colliers are, taking the chances of mooring them, that 25 feet ought to be allowed for the ordinary position of the collier?—So the gentlemen seem to have understood you; but with regard to the outside barge, no vessel ought to have one outside; there is plenty of room for them inside, and every accommodation for them to go inside; and they are able to get under weigh in one tide.

1511. Supposing that these tiers were placed on the south shore, what difficulty would there be in any ship coming down on that shore?—Every ship that got off there would get into the mud.

1512. It has been said, that in order to give a sufficient width for the colliers, it would be necessary to use fenders to separate them: I should rather think that was the reverse?—I should want to put a fender between the two colliers in order to separate them, to make room for the barges to go between them.——*Q.* So that you block the ships out when you separate them?—Yes, to make a space of 18 feet, which is quite sufficient for any vessel.

1513. *A Member.* Mr. Lambert, you have heard the evidence of Mr. Ballantyne, what is your opinion as to the quantity of room which each vessel requires?—I have two vessels, one of 25 and the other 26 feet at the beam, and neither of these vessels are 12½ feet at the stern, where the barges lie.——*Q.* Supposing there were 10 ships in a tier, what is the space that they would require?—*A.* I should say 18 feet each would be quite sufficient.

1514. Mr. Ballantyne, suppose that we were compelled to allow 25 feet to each vessel, what effect would that have; would they be as tort moored as they are now?—Certainly not; and I am afraid it is owing to the lashings not being properly attended to, that occasions the principal part of the damage that is done in the Pool.——*Q.* Would it be a disadvantage, rather than an advantage, to have an additional length beyond the 18 feet?—The more our ships are thrown about, the more liable are they to damage.

1515. Sir *John Hall.* If you wish to keep a clear channel for the navigation, you cannot allow less than 25 feet for each vessel, otherwise your channel will be encroached upon. I quite agree with the gentlemen with regard to the other part of their evidence, as to the width; but we will take it at 18 feet, and let us try the result: 18 ships, allowing 18 feet for each, will make 324 feet, add to that the 40 feet allowed for the in-shore passage, and it makes 364 feet: what is the width of the river at low-water mark?—The width is about 900 feet; that is my opinion.

1516. Sir *John Hall.* It is said to be much less; but let us take it at 825 feet: 18 ships lying in a tier, allowing 18 feet to each, added to the 40 feet I have mentioned, make 364 feet; so that, in point of fact, if this evidence be correct, there would remain a clear navigation in the Pool of 425 feet. I ask any man if he ever saw anything like that width of passage.

1517. *A Member.* This is altogether an assumption. I think Sir John Hall does very wrong to argue on the answers of witnesses: he might trust the committee to come to a conclusion on the facts.

1518. Sir *John Hall.* The result of the evidence is, that the 364 feet, including 40 feet of in-shore passage, gives a free channel for navigation of 461 feet.

1519. Mr. *Ballantyne.* Allow me to make one observation. If it were possible to keep the vessels moored as compactly as they are delineated upon this plan, you would have a channel sufficient to drive a frigate or a seventy-four.

Monday, 3d August 1835.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

WALTER ANDERSON PEACOCK, Esq. in the Chair.

THE proceedings of the last meeting were read.

1520. *Chairman.* The committee will now proceed to hear the London Dock Company through their official agent; afterwards, we shall be happy to hear any suggestions from gentlemen acquainted with this subject; and it will then be our duty to hear the general observations which Sir John Hall may make in reply.

1521. Mr. *Simon Cock.* Mr. Chairman and Gentlemen, I appear before you this day on behalf of the London Dock Company, for the purpose of laying before you some evidence of practical individuals on the subject of the plan proposed by the St. Katharine Dock Company. But previous to my doing so, perhaps I may be allowed to advert to one or two circumstances, which, owing to what occurred at the last meeting, appear to me to require some explanation. One of them is this: on that occasion, Sir John Hall observed that he did not conceive he had been fairly dealt with, inasmuch as, although he was in the habit of furnishing other parties with any information they might require, he himself could never obtain

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obtain any explanations or accommodation in return; that although he behaved in the most candid and open manner to others, he was not dealt fairly by when he came to consult them in return.—Sir *John Hall.* What I stated was, that I had received no communication as to the proposed plans.—Mr. *Cock.* I am not in the habit of addressing public meetings, and I therefore hope I shall not be interrupted in the few observations I shall trouble the committee with. I will not state anything that is incorrect, so far as I am aware of it, least of all in relation to a matter personal to myself (for so I took it to be), although you (Sir John Hall,) afterwards explained that it related to the not furnishing you with the plans, still the expressions which you used in the first instance were much more general and comprehensive, and I think there were many gentlemen it the room who heard the charge who has not heard the explanation. For my own part I should feel exceedingly concerned to have it said of me that I was wanting in a proper return for the courtesy shown me by Sir John Hall on all occasions. It was only two or three days before the last meeting of the committee that it occurred to me that it would be more convenient to have a plan, in order to exemplify the notions which it was our wish to propound to the committee. The preparing that plan occupied until the night preceding the day of our last meeting, and it was not until about ten minutes before I came into this room that I had ever seen the plan. I therefore wish Sir John Hall and the gentlemen present to be convinced that there was nothing unfair in reference to that part of the charge. The other circumstance to which I wish to advert is this: in the month of March last, the paper which I am about to read was signed by a number of pilots and watermen; it is as follows:

1522. "We, the undersigned licensed river pilots, do hereby certify that it is our decided opinion, that to afford safe and requisite accommodation to shipping navigating the River Thames between Limehouse Reach and the Tower, a channel of not less than 300 feet should be reserved for that purpose between the tiers of shipping, or from the outermost ship in any tier (where double tiers are not stationed,) to low-water mark, such channel to be preferably kept where the set of the current is the strongest; and we are further of opinion, that, under proper regulations duly enforced, such channel can be kept with every regard to the general accommodation of shipping frequenting the port of London, provided additional power be given to the harbour-service to remove forthwith all obstructions.

(signed) *J. Chippendale.* *John Gilbert.*
John Ferguson. *E. Pashley.*
J. H. Dix. *W. J. Osgood.*
Wm. Gilbert. *George Chandler."*
Joseph Voy.
And forty-eight others.

1523. "We, the undersigned, having perused the above certificate, fully concur in the opinion therein given.

(signed) *Francis Walton,* Dockmaster, London Docks.
W. K. Maughan, Dockmaster, London Docks.
Charles S. Compton, Principal Dockmaster, St. Katharine Docks.
James Adams, Deputy Dockmaster.
Joseph Adams, Leith and Glasgow Wharf.
Alexander Thompson, Upper Iron-gate Wharf.
David Wright, Cox's Quay."
And fifteen others.

1524. Mr. *Cock.* Since this paper was signed, I have been in correspondence with Sir John Hall, as well in this place as elsewhere; and I have heard this paper adverted to as a proof that those who signed it have subscribed to the project that the colliers shall be removed from the north to the south side of the river. I have endeavoured to convince Sir John Hall that that was not so; that this paper had alone for its object to express an opinion that it was necessary to preserve 300 feet of mid-channel for vessels to pass up and down the river. Finding that I could not succeed in convincing him that such was the sole object of this paper, and that it had been adverted to for the purpose of nullifying the opinions which were expressed by those who signed it, the London Dock Company now declare that they think Captain Maughan's plan preferable to that proposed by the St. Katharine Dock Company; and that they think the project of removing the colliers from the north to the south shore ought not to be entertained. Seeing that I have not removed the impression which exists in a certain quarter, I will take occasion to read the letter that first brought this paper under my attention; because if Captain Maughan has committed himself by signing this paper hastily, he being opposed to the removal of the colliers from the north to the south shore, then I am to be blamed for it, for I sent the paper to Captain Maughan, with a request that he would sign it. But why did I? It came to me with this letter, which I will read to the committee:

1525. "My dear Sir, St. Katharine Docks, March 24th, 1835.

"Having accidentally learnt, on Saturday last, that the Port of London Committee propose, in the amended bye-laws for regulating the navigation of the river, to abridge the channel, now required to be kept at 300 feet width at the least, to 250 feet, and being aware of the impracticability of insuring security and accommodation to shipping passing up and down, unless the 300 feet be preserved, I have obtained the signatures of most of the river pilots to the accompanying certificate; and as the subject is one of common interest, and

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of vital importance to the trade of the port, I shall feel obliged if you will obtain the signatures of your dock-masters to the paper, having left room for them as you will perceive. Do me the kindness, however, to cause the paper to be returned to me immediately, as I must make use of it forthwith.

I am, &c.,

J. Hall."

1526. Mr. *Cock.* From this letter, it appeared to me that the only object was to declare, as the paper purports to declare, the importance of preserving the 300 feet, which it was in the contemplation of the committee to abridge to 250. Having myself been taught to believe that that was very important, and it having been so regulated by former bye-laws, I had no hesitation in coming to the conclusion that it would be to the interest of the London Dock Company to do all in their power to preserve the 300 feet; and I sent the paper to Captain Maughan, with a request that he, and Mr. Walton, the other dock-master, unless they had any objection, would sign it, and return it to me immediately, as the letter required. It was accordingly signed and returned to me, and by me to Sir John Hall; but when Captain Maughan afterwards called on me, he suggested that, although he had signed it, he was not quite satisfied with it, for these words might as well have been left out, "such channel to be preferably kept where the set of the current is the strongest." I cannot say that I did not notice those words, but I thought they amounted to nothing more than that the channel was to be kept between the colliers; I never thought it contemplated the removal of the colliers to the south shore, as Captain Maughan objected, as I shall be enabled to prove in the clearest possible manner. On looking over my papers, I found a letter sent me by Captain Maughan, dated 21st January 1833, in which he says:

1527. "Dear Sir,

"I return herewith the bye-laws, and also memorandum of alterations as proposed by the St. Katharine Dock Company, several of which are very good, but some I think will be found impracticable to adopt. The great matter for our consideration appears to me, that the tiers be not removed to the opposite side of the water; and I think I can offer reasons why it would be unwise to do so, without touching the objections the London Dock Company must have to such an alteration; but upon these opinions I wish to take yours previous to meeting the committee on the 29th inst. It is not shown that an idea of this sort is entertained; but I nevertheless hear it is contemplated, and I am anxious to be prepared."

1528. Mr. *Cock.* The opinion which Captain Maughan now entertains, and which is explained by the plan he has laid before you, is in perfect consistency with his having signed this paper, which says nothing whatever about the removal of the colliers, and which he was requested to sign in the manner I have told you. I cannot help saying, on reflection, that I think there has been a want of that candour which ought to exist between two large establishments on matters of this sort, in so far as regards this paper and the subsequent proceedings, which have reference to a subject of such vital importance as this to the London Dock Company. Although I am more ignorant of the navigation of the river perhaps than any man in this room, yet I have taken great pains to make myself master of the subject, as well from personal observation as from inquiry of gentlemen who are competent to afford information; such men as Mr. Forrest, and persons of that class; men of experience, of reputation, and of practical knowledge: and up to this moment I never heard a single man express a doubt upon the subject of the great injury which would result to the London Dock Company by the removal of the colliers in the way proposed by Sir John Hall. That being the case, I cannot but feel strongly on the question; and that I am bound to make certain observations, and advert to certain facts, which under other circumstances it would be far from my wish to do. I have said that there appears to me to be a great want of candour on the part of those who are opposed to us, and I will explain why: I never said anything of any man when absent, which I would not say of him in his presence. I shall therefore go the full length of what is passing in my mind, in the presence of the gentlemen to whom it refers. In the month of April, I received this letter from Sir John Hall, dated St. Katharine Docks, 8th April 1835:

1529. "My dear Sir,

"The Port Committee, I understand, have determined upon inserting 250 feet only in the altered bye-laws, and have not made any communication to the Trinity corporation in consequence of the important document transmitted them, of which I sent you a copy. I have yesterday therefore officially addressed the port committee, and have requested that no further steps may be taken until they have taken the opinion of the elder brethren upon the document referred to. I wish you would address Mr. Peacock, the chairman of the port committee, a few lines to the same effect. We only desire discussion, and that inquiry shall precede decision.

I am, &c.

J. Hall."

1530. Mr. *Cock.* The answer or opinion of the Elder Brethren of the Trinity-house was taken prior to the discussion of the document in question. Then comes the letter of the 19th of June:

"My dear Sir,

At the next meeting of the court of common council, which is expected to be held on the 2d of July, a memorial will be presented from this company, of which the enclosed is a copy;

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a copy; and also memorials from other parties interested in the 300-feet channel. It would be very desirable if you would obtain the permission of the Directors of the London Dock Company to cause a short memorial to be presented, praying also that the proposed bye-laws may be referred back to the port committee for re-consideration. I will not quit this subject until the public have redress; and if we cannot obtain it from the present authorities, I believe it will not be withheld by higher authority.

I am, &c.

John Hall.

"You will, of course, keep the enclosed private, as it is not intended copies should see daylight before the original is presented."

1531. Mr. *Cock.* This is the Memorial to which Sir John Hall refers in the letter which I have just read. "To the Right Honourable the Lord Mayor, Aldermen, and Commons of the City of London in Common Council assembled, the Memorial of the St. Katharine Dock Company, sheweth, that since the year 1798, several Acts of Parliament have passed for rendering more commodious, better regulating, and improving the port of London, and a committee has been annually appointed by the court of common council under the authority of those Acts for carrying the same into execution; that the commerce, trade and navigation of the United Kingdom, and of the port of London in particular, are deeply interested in the preservation of an unobstructed channel in the river Thames, for the safe and convenient transit of shipping; that the importance of affording increased security and accommodation to merchandize and shipping, and of giving additional effect to the warehousing system, induced the legislature to grant encouragement to the construction of wet docks and warehouses enclosed within walls between Blackwall and the Tower; and the proprietors and occupiers of such docks, and of wharfs and bonding warehouses situated in the City of London, and on the banks of the river (in the construction and fitting of which many millions have been expended), are all of them materially interested in the removal of impediments to the navigation of the river Thames, and in preserving to the metropolis its commercial intercourse with other parts of the world, as are also the corporation of London, in their character of landlords and receivers of tolls; that in 1832 your memorialists brought under the especial consideration of the worshipful the port committee the obstructions that existed to the navigation of the river, and also the inefficient manner in which the harbour-service was performed; that representations of a like import were made at the time by the London Dock Company, and by wharfingers, ship-owners, and others connected with the commerce and navigation of the port, which representations induced the committee to institute an inquiry into the subject-matter of complaint, the result of which conclusively established the existence of the grievance, and proved, further, that it was a growing evil, requiring not only an effective but prompt remedy; that the port committee proceeded to revise the bye-laws accordingly, and although your memorialists and others interested in this most important question, have, during upwards of two years, incessantly urged the necessity of giving effect to an amendment of the bye-laws, and the adoption of improved regulations for the management of the harbour-service, which were prepared by the committee in 1833, it was not until the 20th of March last, that your memorialists were apprized that the port committee (of subsequent appointment) had at length determined upon certain alterations, professedly with a view to removing the grounds of complaint, and of giving effect to the purposes of the Acts before referred to; but to the surprise and disappointment of your memorialists, instead of those alterations proving to be of a remedial character, some of them are obviously calculated to aggravate the difficulties of navigation, it being actually proposed to contract the present navigable channel 50 feet, in direct opposition to the deliberate decision of the committee in 1833, who, after a most attentive and laborious investigation, and conformably with a greatly preponderating body of evidence, determined to adhere to the regulation as now by law established, which provides for a navigable channel of not less than 300 feet; whilst it further appears that it has been recommended to assign certain parts of the river for the mooring of ships in tiers, in such manner and in such numbers as will, if carried into effect, be highly injurious to the general interests of the commerce and navigation of the port; that within a few hours after your memorialists were apprized of so unexpected and extraordinary a determination, a certificate (copy of which is annexed) was signed by a very large proportion of the river pilots, by the dock-masters of the two principal upper docks and also by several of the proprietors and occupiers of wharfs between Limehouse and London Bridge, declaratory of the necessity of preserving 300 feet width of channel, as provided by law, and objecting to those parts of the river where the current sets the strongest being appropriated for the mooring of ships in tiers, and recommending that such parts ought to be preferably devoted to the purposes of transit, and thus contribute to the security of shipping and increased facility of transport."

1532. Mr. *Cock.* (In continuation.)—I have no doubt Sir John Hall must recollect that I wrote to him some short time after the receipt of this memorial, stating that the London Dock Company were not disposed to sanction an application to the common council for an alteration of the bye-laws, and stating certain other matters in which we did not agree. But I shall come to that presently.

1533. (Memorial continued). "That your Memorialists immediately, and some time previously to the report of the port committee being presented, transmitted to that committee the important document in question, with the view of bringing under their notice an official record of the opinions of practical navigators, experienced public officers, and others concerned

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concerned in the navigation of the port, and requesting that such testimony might receive consideration; but the port committee, contrary to the just expectations of your memorialists, declined to pay attention thereto, stating that they had already communicated with the Elder Brethren of the Trinity Corporation upon the proposal to contract the space of 300 feet now set apart by law for the transit of shipping, and who, as the committee allege, had intimated their approval of such abridgment, and of other alterations in the bye-laws now recommended by the port committee for the sanction of the court; your memorialists, however, beg leave respectfully to express their doubts of the accuracy of the impressions the Port Committee have formed as to the opinion of the Elder Brethren upon the matters referred to, and they invite the attention of the court to the fact, that whatever may have been the communications between the Port Committee and the Elder Brethren, those communications took place previously to the presentation of the important document before referred to, which it may with confidence be assumed would have been considered deserving of attention by the Elder Brethren, provided the Port Committee had thought it right to confer with them thereupon; whilst it is further to be observed, that no approval by the Elder Brethren of the Trinity-house in the premises can be legally pronounced until the court of common council shall have first sanctioned the proposed bye-laws, so that any reference to their opinion was premature; and it is also worthy of observation, that your memorialists were not at the time favoured with the slightest intimation of the extraordinary means by which the Port Committee have proposed to remedy the grievances complained of, but were indebted for a knowledge of the same to a mere accidental circumstance. Your memorialists are prepared to prove before the committee, if permitted so to do, that the narrowing of the channel for the purposes of navigation as proposed, will be productive of most serious obstruction to the transit of shipping, detrimental to the interests of the commerce, and particularly injurious to the merchants, traders, and ship-owners of and frequenting the port of London; that it will not be possible, without impeding the maritime approach to the port, to moor the number of ships in the tiers named in the proposed bye-laws, nor in the manner suggested by the committee within the computed space of 20 feet for each ship (including casualties,) a space which your memorialists believe to have been so allotted, although they cannot venture to speak with certainty, inasmuch as the Port Committee refused to give your memorialists information upon a point in respect of which every person connected with the shipping of the port is so materially interested: whereas it can be proved that, upon an average, and therefore for practical purposes, a space in width of 25 feet ought to be allowed for each ship, and would, if the number of vessels proposed to be stationed in some of the tiers be adopted, produce in certain instances an encroachment upon the navigable channel of upwards of 100 feet beyond the space computed by the Port Committee; and it can further be satisfactorily shown, that certain parts of the river assigned for the mooring of tiers, and for the number of ships proposed to be moored thereat, will seriously endanger navigation and impede the transit; that there are moreover other defects in the proposed bye-laws and regulations, but as they are of a minor character, and partake more of detail than of principle, your memorialists will not now enlarge upon them, but will be prepared to afford information respecting them before the Port Committee, if allowed to do so. Your memorialists cannot conclude this representation without expressing a deep regret that the Port Committee have been wholly silent upon the subject of the shoals and mud-banks, which contribute, in so great a degree, to the obstruction of the navigation between Woolwich and the Tower; your memorialists are aware that doubts are entertained as to whether any competent authorities exist who can be made responsible for the removal of those growing impediments; but conflicting opinions upon so important a question ought not to be permitted to retard the application of a remedy, and your memorialists therefore confidently rely upon the Port Committee submitting the subject without delay to the early and serious consideration of His Majesty's Government. Under all the circumstances stated, and considering that the Port of London Committee have declined to hear your memorialists upon the particular and important points referred to, and have also refused to afford the information requested, or to pay attention to the recorded opinion of the pilots, dock-masters, ship-owners, wharfingers and others, as set forth in the certificate submitted to their consideration, unless the matter be referred back to them, your memorialists pray that the report of the committee may be referred back to them accordingly, for the purpose of further investigation into the important matters in question, so as to afford your memorialists an opportunity of tendering evidence thereupon, and of being heard generally upon the same.—By order of the Board of Directors of the St. Katharine Dock Company.

London, 28 May 1835. *John Hall*, Secretary."

1534. Mr. *Cock*. Having received this memorial, enclosed in the letter which I have just read, I wrote Sir John Hall the following answer——

1535. Mr. *Robinson*. I really do not see what we have to do with the private correspondence of Sir John Hall and the secretary to the London Dock Company.

1536. Sir *John Hall*. If Mr. Cock labours under a conception that the idea of this plan preceded the memorial, he is mistaken; for I pledge my honour to this committee that, up to the period when the memorial was concocted, it had never entered into my mind; neither had I any communication with any individual whatever on the subject of removing the colliers from the north to the south side of the river.

1537. Mr. *Cock*. What I said, or intended to say, was this, that the persons who have seen your plan for removing the colliers, and who object to it, are not to be considered as being bound to acquiesce in the whole of the plan, on account of their having signed this memorandum.

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1538. *Chairman.* The impression that Sir John Hall left on the mind of the committee at the last meeting was, that there had been a change in the opinion of the dock-masters of the London Docks, which seemed to him to be a most extraordinary one, and which he could not account for.

1539. Mr. *Hale.* That was the impression left on the members of the committee, and Sir John Hall ridiculed the parties for having signed both petitions.

1540. Sir *John Hall.* I beg the honourable gentleman's pardon; I have never attempted to throw ridicule upon any party throughout these proceedings.

1541. Mr. *Cock.* As I was about to observe, on receipt of this memorial, I wrote the following letter to Sir John Hall:

1542. "Dear Sir, "London Dock-house, June 19th, 1835.

"I have received yours of this day, with a print of the memorial you intend to lay before the court of common council at their first meeting on the 2d of July, and suggesting that I should get my court to sanction a similar memorial from this company. Feeling the importance of keeping the channel of the river open, I am ready to co-operate with you as far as I can, but I am at a loss how to act. If I show the directors your memorial, it will be impossible for me to prevent their talking of it; and if I do not, I have no information of what the Port Committee have done, or intend, upon which I can found a recommendation that we should petition the Common Council. How am I to know that the Port committee intend to contract the passage to 250 feet? All that I have heard on the subject is contained in your letter of the 24th of March, in which you informed me you accidentally heard of what was intended by the Port Committee.

I am, &c.
S. Cock."

1543. Mr. *Cock.* On the same day I received the following letter from Sir John Hall:

1544. "My dear Sir,

"If you will send to the town clerk for a printed copy of the proposed bye-laws, he will let you have one, which, upon reference to No. 24, page 8, will show you the intended contraction of the channel. I did not, of course, mean the injunction as to the perusal of the copy of the memorial to apply to your directors, but merely that the document should not be shown to any other parties. Your memorial might be very short, as the details are fully set forth in ours.

I am, &c.
J. Hall."

1545. Mr. *Cock.* There is one passage in the memorial which I have just read, which on my perusal of it appeared to me to be recommending a project which would be highly injurious to the London Dock Company. It is this: "That within a few hours after your memorialists were apprised of so unexpected and extraordinary a determination, a certificate (copy of which is annexed) was signed by a very large proportion of the river pilots, by the dock-masters of the two principal upper docks, and also by several of the proprietors and occupiers of wharfs between Limehouse and London Bridge, declaratory of the necessity of preserving 300 feet width of channel as provided by law, and objecting to those parts of the river where the current sets the strongest being appropriated for the mooring of ships in tiers, and recommending that such parts ought to be preferably devoted to the purposes of transit, and thus contribute to the security of shipping and increased facility of transport." Now this goes considerably beyond the paper which our dock-masters signed at my request; but then, on the same side as the certificate which they signed, there is the following "Example," as it is called: "Statement of the number of ships intended to be moored in tiers on the north shore in the Lower Pool, according to the proposed bye-laws, showing the space each tier would occupy, 25 feet being the computed space in width required practically for each ship, which includes an allowance for fenders, shifting of ships, and moorings, casualties, &c. and providing for one craft alongside the outermost ship; showing also the width of the river at low-water mark, and the width of the channel that would remain for the purposes of navigation." Then, after giving the statement in figures, there follows this: "The above statement shows the impossibility of mooring the number of ships as proposed, without so narrowing the channel as to obstruct the transit of shipping; and to a similar error, and a want of sufficient allowance for space occupied upon an average for the inner channel, the constant encroachment upon the passage of 300 feet may be attributed, and hence the confusion in the Pool. Moorings ought to be provided for colliers on the opposite south shore, by which additional accommodation would be afforded, and the stream on the north side appropriated, as it should be, for navigation; a wider passage would thus be secured, and kept with comparative ease." It struck me that this being printed on the same side as the copy of that paper which the pilots and the dock-masters signed as to the necessity of preserving the 300 feet, that, putting the two together, whether it could be said that the party who signed the one statement must be taken to have approved of the other. The way in which Sir John Hall put it to the committee was this: he said that the pilots and dock-masters having signed the first paper, and having well understood that its object was to give their concurrence to the plan of the St. Katharine Dock Company, for removing the colliers from the north to the south shore, that they were departing from the opinions they had formerly expressed, by giving their preference to the plan of Captain Maughan over that of his, Sir John Hall's. I shall be able to prove

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to the committee that none of these parties, when they signed this certificate, believed that Sir John Hall had it in contemplation to do anything half so rash, or half so injurious to the interests of the London Docks, as that which he has since proposed for your adoption. There is one other letter which I will read before I close these few observations. It is from myself to Sir John Hall, and is dated,

1546. "Dear Sir, "London Dock-house, June 30th, 1835.

"My directors are not disposed to make or to sanction an application to the Common Council in opposition to the report of the London Port Committee on the subject of a new code of bye-laws. I find, too, that strong doubts are entertained how far the London Dock Company ought to concur in the suggestion, that those parts of the river where the current sets the strongest should not be appropriated to the mooring of ships in tiers, but preferably devoted to the purposes of transit; for although this is a good general rule, some exception must be made to it with reference to the situation of the entrance to the London Dock, into which it would be necessary to enter, if it were in contemplation to adopt the principle suggested in your memorial. It is thought by my directors to be very desirable that the channel should be kept clear full 300 feet; but they think that having addressed a memorial to the London Port Committee to that effect, and as it appears that the Elder Brethren are of opinion that circumstances require that 50 feet of that space should be given up, the Company should not press the matter further."

1547. Mr. *Cock.* It is not my wish to take up the time of the committee any longer. I will now proceed to call those witnesses who will support my view of the case.

1548. *Chairman.* What is the nature of the evidence you are about to go into?

1549. Mr. *Cock.* I propose, first, to examine several persons who have been pilots for many years, to contradict the testimony adduced by Sir John Hall.

Messrs. *Bond, Knight, Searle, Headley, Sibsey, Mottley, Small, Prescott, Butterswick, Spencer* and *Norfor*, were called in, and severally examined by Mr. *Cock*, as follows:

1550. Mr. *Cock.* As all these gentlemen, who are pilots, come to speak to one particular point, perhaps it would be more convenient to the committee that I should examine them all at once. Now, gentlemen, I am going to put to you all the same questions; and if any one of you should not concur in the answer which another may give, I would wish the gentleman who differs to state at once the reason for his difference of opinion. The first question which I wish to put to you is—

1551. Have you seen the plan proposed by the St. Katharine Dock Company for removing the colliers from the north to the south side of the river?—Mr. *Bond.* We have all of us seen that plan.

1551.* Do you approve of it, and do you consider it a plan calculated to improve the navigation of the river?—By no means; certainly not: we object to it altogether.

1552. Would you state the grounds of your objection?—I consider that the passage down the south shore with a strong ebb-tide is much better than it would be down the north. We practical men find a very great difficulty even in a calm, or with a south-west wind, to keep our ships out of Limehouse-hole. This is a difficulty and danger to which we are now exposed; and how much more would the difficulty and danger be increased if we were compelled to go down the north shore! I am satisfied the difficulties would be insuperable. Independent of what I have mentioned, there is a large shoal near to Limehouse-hole, which has not more than three feet of water above it at low water; and if the ships once got on that, how are they to get off again? These are some of the objections to the proposed plan.

1553. How long have you been a pilot?—Since 1810.

1554. Do the other pilots concur in the opinion that has been given by this gentleman? [By several pilots] Yes, we do.

1555. What, in your opinion, would be the effect of removing the tiers of colliers which now lie below the Shadwell entrance to the London Docks; do you not think that it would be exceedingly injurious to the interests of the London Dock Company?—I may say that I have nothing to do with the interests of the London Dock Company, or of any other dock; but there is no doubt that the passage to which you allude would be very much obstructed by the transit of shipping coming across that entrance, both up and down the river.——Do the other pilots concur in the answer which has been given by Mr. Bond?—[By several pilots] Yes, we do.

1556. By Sir *John Hall.* Do you pilot ships from or to the London Docks?—I pilot other ships to other docks beside the London Docks.——Q. Do you think that this plan proposed by the St. Katharine Dock Company would narrow the channel of the river?—*A.* I have no doubt that it would; because if the colliers are removed to the south shore the channel would be very much narrowed, owing to vessels being obliged to lie at the London Dock buoy. It would be impossible ever to get clear of that buoy, which would in the end become a common nuisance; and I cannot see any reason why the colliers should be removed from the position which they now occupy; the channel is now nearly straight, as laid down in the plan that I see before me.

1557. Would it be of advantage to the colliers themselves that they should be removed from the north to the south side of the river?—Certainly not; on the contrary I should suppose. If they should be removed out of deep water into comparatively shoal-water, I certainly think that must be considered a disadvantage; for they would most likely go aground, as they would not have so much water by nearly one half as they have now; and, besides that, would be exposed to the running on a very steep bank: I think that would be the case.

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1558. I suppose you are aware that part of the plan proposed is to excavate the river on the south side, so as to make room for the tiers of colliers?—That I do not know any thing about; I did not so much turn my attention to that part of the subject as to the clearness of the channel.

1559. Having stated that to be your opinion, that it would be injurious if the colliers were removed from the north to the south shore, I beg to know is there any one of the pilots who thinks otherwise?—*A Pilot.* I do not believe that you would ever get any of the colliers to move from the situation they now occupy.——*Q.* Are you all of one opinion upon this head?—*A.* [By several pilots] Yes, we are.

1560. What effect would the proposed alteration have upon the coal-craft; would they in your opinion be liable to meet with more obstruction than they do now?—No doubt they would; because there is the Trinity-house buoy moored in that direction, besides another dock, and further down the bight there is the Regent's Canal. I think there is space enough inside at present for one or two craft, which would not be the case then.——*Q.* You think that it would be injurious to the coal-craft as well as to the colliers?—*A.* No doubt. They would be getting more in the way of the ships than they do now; it would in fact be confusion worse confounded. There are a great many coal-wharfs in that part of the bight, which occasions a great number of coal-craft to be near there; and ships coming up or going down must necessarily be impeded by them.

1561. There is a paper before me, which has been signed by a number of pilots and watermen, dated the 14th of July 1835, expressing the opinion of those who have signed it, that the proposal of the St. Katharine Dock Company is very objectionable. I beg to read it to you before I ask your opinion of it.

1562. "We, the undersigned ship-owners, pilots, and others engaged in conducting vessels navigating the river Thames, having been requested to consider of a measure suggested by the St. Katharine Dock Company to the Common Council of the City of London, 'that those parts of the river where the current sets the strongest should be appropriated to the purpose of transit, and that moorings should be provided for colliers on the opposite south shore,' whereby it is represented a wider passage would be secured, and kept with comparative ease, do hereby declare our opinion to be, that such transfer of the colliers to the south shore is calculated to do very serious injury to the London Dock Company; because the channel, or highway of the river, will be thrown thereby so near the approach to the Shadwell entrance as materially to impede the passage of vessels in and out of the dock; that the moorings off the entrance will lie in mid-channel, or nearly so, and consequently any vessels lying there will be exposed to continual injury and damage from ships, craft, &c. passing up and down; that, as affecting the colliers, it is highly objectionable; because a considerable portion of them will be removed from where they now lie, in 15 feet at low water on the north shore, to five or six feet water on the south; and if, in order to avoid the shoal-water, they were to be taken lower down, and placed near the point off Globe-stairs, they would then be exposed to serious damage, by settling upon and against a steep shore, whenever the wind might blow strong from the northward. If it be proposed to avert this danger by laying down moorings, we would then observe that the same expense, or much less, would be incurred by placing them where the colliers now lie; and which, in our opinion, would meet all the difficulties at present experienced, by retaining the tiers in a position, to the want of which alone are, in our judgment, to be attributed the impediments that occasionally occur, and which are unavoidable, notwithstanding the utmost vigilance of the harbour-masters. In the event of a hard frost, it will be impossible to get the vessels on shore on the south side, to avoid the ice, which we apprehend the removal of the old London Bridge will cause to assume a much more dangerous character than heretofore. The plan suggested by the St. Katharine Dock Company appears to us to be also objectionable on public grounds, inasmuch as the portion of the river now occupied by colliers, and where there is full 15 feet at low water, will in a short period become so shallow as to prevent the passing of vessels of small draft of water at low tide: this we conceive to be made evident by the fact, that, whenever the colliers have been absent from the Pool two or three weeks, the ground has filled up as many feet. When the Pelican and King James's-stairs tiers were kept, a depth of water existed of 10 and 11 feet; since their removal this part of the river has gradually filled up, and now dries. In January, 1832, when the Shadwell-dock tier was removed, to lay down the moorings of the London Dock Company, 17 and 18 feet of water existed at low water, Trinity standard; whereas there is now little more than 14 feet, although vessels are frequently left for days at the moorings, with a view to keep the ground open. As the prevailing winds are from the southward, the altering the channel to the northward must have the effect of throwing the vessels to leeward near Duke's Shore, and upon which both ebb and flood-tide set strongly, insomuch that, with strong winds from the south and south-south-west, vessels will not be able to underlay the tide on either tack; the result of which must be to cause great confusion, impediments and damage. In considering this subject it must be borne in mind that the Pool is only now narrowed generally when the wind blows strongly from the northward, which forces the tiers to leeward, and keeps such colliers as have dropped up from getting into the tiers so quickly as is desirable for the purpose of preserving a clear and unobstructed passage.

(signed) *W. J. Maughan*, Pier-head, Shadwell.
Timothy Hutchinson, Shadwell.
R. Flinn, Shadwell.
George Fawcus, Shadwell.
Robert Brown, Shadwell."

1563. Mr.

1563. Mr. *Cock.* Having read this paper to you, I beg to ask you whether, on reconsideration, and having discussed the question one with another since the period of your signing the paper, do you adhere to the opinions you then expressed—that the plan is objectionable for the reasons which are here stated?—Quite so; I can speak for myself: I may say I did nothing rashly, for I took everything into my consideration before I signed that paper.

1564. Is there any gentleman here who has not signed this paper?—Mr. *Barton.* I have not signed it, neither will I; and I beg to offer my opinion to the committee upon this subject.—*Chairman.* If the gentleman will be kind enough to wait until the present examination is concluded, we should be most happy to hear any suggestions he may have to offer.

1565. Mr. *Small.* Although I have not signed the paper that has been just read, I perfectly concur in the opinions of the other pilots.

1566. Mr. Prescott, you have heard the document which has been just read, will you be good enough to give the committee your opinion upon this subject?—Mr. *Prescott.* I am decidedly of opinion that you would not better the foundation of the Pool by removing the ships from the north to the south shore; I do not think it would do any good: all the craft would be going to the northward after all, as they do now.——*Q.* You have been a pilot for many years?—*A.* Twenty-three years.——*Q.* Did you hear of this proposition some years ago?—*A.* Yes, I think some six or seven years ago something of the kind was proposed.——*Q.* Did you give any opinion of it then?—*A.* I did not; I was asked to sign a paper, but I refused.——*Q.* Your opinion decidedly is, that the removal of the colliers to the south shore would not be beneficial?—*A.* If the plan be carried into effect, it will be merely an experiment: for if you shift the ships to the south shore, you will have to bring them back to the north shore again.

1567. Supposing that mooring-buoys were placed off the entrance of the London Docks at Shadwell, do you not conceive that it would be a very serious obstruction to the navigation of the river?—Certainly, to ships going up and down.——*Q.* Do you all agree in that opinion?—*A.* [By several pilots.] Decidedly.

1568. As it often happens that some three or four vessels are lying at the London Docks' buoy, will not the passage be so narrowed as to make the navigation difficult and dangerous?—More difficult than it is now.——*Q.* Will it not be rendered more difficult to the small boats?—*A.* To the coal-craft.——*Q.* Will it not throw impediments in the way of the ships going up and down the river?—*A.* No doubt it will; the Pool never has been altered for the better in my opinion. They may make different regulations, but there will always be a number of craft going up and down to the northward, notwithstanding all the colliers should be sent to the other side of the river.

1569. Supposing the colliers to be removed to the south shore, would it become absolutely necessary to remove the buoys at the London Dock entrance, so as to have a clear passage?—*A.* No doubt that would be the case, because if the buoys were continued there, there must be an obstruction.

1570. One of the pilots being here about to interrupt Mr. Prescott in the continuation of his answer.

The *Chairman* said, it would be better to allow Mr. Prescott to proceed. Although he has not been summoned by the London Dock Company, I beg to inform the committee how he came to be here: I accidentally heard, when on board a steam-boat, that Mr. Prescott was a very experienced man, who had been a number of years on the river, and having taken no part on either side of the question, I requested the town-clerk to ask the favour of his attendance here, and I am most happy to see him.

1571. Mr. *Prescott.* I beg to repeat what I have said before, that I do not think the Pool can be altered for the better. Whatever may be done by shifting the colliers, it will only be an experiment, and they must return to their old position.

1572. What would be the effect of removing the buoys at the southern entrance of the London Docks, supposing it to be found absolutely necessary to remove them?—The consequence would be, that ships would be obliged to let go their anchors; they must have something to bring them up.

1573. Would not that be very injurious to the interests of the London Docks?—When there were three or four vessels coming up together, they certainly would be in the way of other vessels that were in the same track.

1574. The plan of the St. Katharine Dock Company is to remove the colliers, and that the channel should be preserved throughout the river where the tide runs the strongest: I want to ask you, as a person acquainted with the navigation of the river Thames, does or does not the ebb-tide set very strong on the tiers in Hanover-hole?—No; it is the flood-tide that sets on the tiers in Hanover-hole: it sets all along that side, until it throws off at Mill-hole.——*Q.* Does the flood-tide set on Mill-hole tier?—*A.* It does, decidedly.——*Q.* If so, should not these tiers be removed, to admit of the channel being kept in that part where the tide sets the strongest?—*A.* No doubt of it.

1575. You have said, that unless the tiers were removed, the navigation could not be confined to that part of the river where the tide sets the strongest; must not other tiers be removed to admit of that being done?—Certainly.——*Q.* Do you not think that the tiers beyond this place I am pointing to, should be removed to the other side of the river in order to make the plan consistent?—*A.* I do not think Mill-hole tier has any effect on the ships going into the London Docks; there is a very considerable space between the entrance to the London Docks and the Mill-hole tier.

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1576. It has been stated in the paper which I have just read, that the prevailing winds are from the south and south-west, and that the altering of the channel from the north shore must throw the vessels to the leeward near Duke's Shore, which would cause great confusion and damage; can you explain how these effects would be produced?

1577. Mr. *Bond.* We stated before, that owing to strong south-west winds, if the channel was confined to the north shore, the ships would sometimes go to the leeward on the shoal, and the difficulty would be, how we were to get them off: it is as much as we can do now to keep our vessels clear of Limehouse-hole tier and Limehouse-reach; and I consider that if the channel was made as proposed, that nothing whatever would be able to ride at Duke's Shore. Even now ships cannot be lost off Limehouse-hole, or in Limehouse-reach, above the King's Arms: the ships to which I am pointing on the plan must be removed to make a channel for the transit of other vessels, otherwise damage is likely to accrue.

1578. You have all heard the opinion expressed by Mr. Bond; do you concur in it, or do you differ from it?—*A Pilot.* I believe we all concur. If you were to let go your anchor in that place your kedge would not hold you; you would be sure to go aground: for there is a great deal of shoal-water about there, and I do not think that it would be possible to clear it with a south-west wind.

1579. You are a pilot, I believe?—Yes.——*Q.* What is your name?—*A.* Sibsey.——*Q.* Having spoken to the St. Katharine Dock plan, I now beg to ask you if you have seen a plan proposed by Captain Maughan?—*A.* I have.——*Q.* Do you consider this plan preferable to the other?—*A.* I think putting the ships on the north side would be decidedly the best: I have examined the plans, and in my opinion I think the most preferable way would be to put the vessels on the north side; I do not think that removing them from the north to the south would be of any benefit.——*Q.* Have you examined the plan proposed by Captain Maughan, as well as the other plans?—*A.* I examined Captain Maughan's plan while I was in the office, and compared it with another plan sent to me, and I certainly give the preference to Captain Maughan's, for one reason, and that is, the taking of the over-lap of these two tiers.——*Q.* Have you seen the harbour-masters' plan?—*A.* I believe not.——*Q.* Then you have not compared it with the plan of Captain Maughan?—*A.* No.

1580. *Chairman.* If none of these gentlemen have had an opportunity of looking at or examining the plans before they came into this room, we cannot expect them to give any decided opinion upon their comparative merits, by merely glancing over them as they lie upon the table.

1581. Sir *John Hall.* With regard to the number of feet allowed to a clear passage-way, I beg to state to the gentlemen of the committee, that the plan proposed by the harbour-masters does not give a clear water-way of even 250 feet; it is no more than 230, according to the measurement.

1582. *Chairman.* Why should you, Captain Fisher, draw a plan less than 250 feet?—Captain *Maughan.* How many feet of clear water-way do you allow on your plan?—Three hundred feet at the nearest part of the channel at low water.

1583. Sir *John Hall.* It is only 230 on the harbour-masters' plan, although they say, practically, that it is 250; their calculation is erroneous: I am not at all desirous to mislead the members of the committee, but we must look to the facts. It has been explained, or attempted to be explained by Captain Fisher, that the circumstance was owing to there being two ships too many put in one of the tiers.

1584. Captain *Fisher.* I will explain this to the committee. The harbour-masters agreed to a certain number of feet in the plan which was proposed to the committee; but this was reduced when it was submitted to the inspection of the Trinity House: the fact is, there are one or two vessels too many put in one of the tiers, but that is an act of the Trinity House, and one for which the harbour-masters are not to be blamed.

1585. Captain *Maughan.* According to this plan of the harbour-masters, there are several colliers lying within the boundaries of the London Docks.—Captain *Fisher.* There can be no objection to laying a few vessels within the boundaries of the London Docks.—*Chairman.* I think it would be better that Captain Maughan should give in an explanation of his plan before anything further is said upon it.

1586. Captain *Maughan.* I beg to hand in this paper, as an explanation of the plan which I propose to the committee.

1587. "The plan herewith submitted, after leaving a clear navigable channel of not less than 300 feet in the narrowest part of the Pool at low water, provides accommodation for 150 sail of colliers, a number it is understood that will meet the necessities of the coal-trade. It shows the in-shore passage rather limited, but it will not be so when in operation; as, although 21 feet is allowed in width for each vessel, not more than 19 feet is required, and actually taken, on the average, which has been determined by various admeasurements. For the purpose of maintaining this channel, it is submitted, that moorings, by single stones, be laid down as marked on the plan, for the outermost vessel in each tier to moor to: all other vessels in the tier to moor with their anchors, as has been the practice hitherto. The tiers will thereby be retained in position, except during very strong winds from the northward, when they may settle out from 30 to 50 feet, according to the length of the mooring-chains, &c. This deviation allows the inside vessels' anchors to bear a fair proportion of strain, and the result will still be to secure a clear passage of not less than 250 feet, as intended by the new bye-laws. The expense that will be incurred to carry this plan into execution will not exceed 2,700 *l.*, say for 22 buoys, mooring-chains, mooring-stones, and the putting down.

"Shadwell, 24th July 1835. *W. K. Maughan.*"

1587. Mr.

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1587*. Mr. *Cock.* I wish one or two questions more to be put to the pilots, in order that they may not be detained. In the paper which many of you have signed, you state that the Pool is narrowed when the wind is strong from the north: is the mode suggested for mooring vessels, by single stones properly sunk into the bed of the river, calculated to meet that difficulty, and ensure a better channel for vessels passing up and down?—*A. Pilot.* Certainly, I think it does: there perhaps ought to be four stones instead of two.—Captain *Maughan.* I have no doubt there ought to be four instead of two: I was looking at the expense of the thing when I mentioned only two.—Mr. *Cock.* Without such marks being laid down, can the harbour-masters at all times preserve a channel of 250 or 300 feet, even though the vessels at the tiers should be reduced as proposed by Captain Maughan?—*A.* Not if the wind is strong from the north, we all of us think.——*Q.* You perceive by the St. Katharine Dock plan that the colliers are made to occupy a much greater length of space down the river than they do at present; do you consider that to be an advantage or otherwise?—*A.* They cannot lie below the Pageants' causeway on the south shore.——*Q.* According to the St. Katharine Dock plan, how far do they extend below the Pageants?—*A.* Two tiers.

1588. *Chairman.* I think that you have now gone through your examination, as to the shifting of the vessels from the north to the south shore; and the committee must feel satisfied that you, gentlemen, are all of one opinion upon this subject. I should like to put one or two questions to them as to the 300 feet channel.

1589. Mr. *Cock.* As I stated to the committee when I began, my object is to point out to them the great detriment which would be occasioned to the London Docks if this plan of Sir John Hall's was carried into effect. Captain Maughan, allow me to ask you what would be the expense of laying down two of these stones for mooring-chains?—Captain *Maughan.* 2,700*l.*——*Q.* Supposing you had four instead of two, would that cost another 2,700*l.*?—*A.* Yes.

1590. *Chairman.* Perhaps it would be as well that one of the harbour-masters should now state to the committee what objections they have to mooring-chains and stones being laid down?—Captain *Fisher.* I think that the colliers cannot be moored in a better way than they are at present, to allow them to work, and go in and out of the tiers as they have occasion.——*Chairman.* Will you state to the committee your reasons for objecting to colliers being moored in this way?—Captain *Fisher.* In the first place I object, on account of the enormous expense that it would incur, not only in the first instance, but it would cost an immense sum of money to keep them in repair, owing to vessels constantly getting foul of them, and to the immense number of craft that would drive over them. I think they would be almost constantly being carried away. I know that it is the wish of the Trinity House to keep as few buoys as possible in the river Thames. If these mooring-chains were laid down, vessels would be getting foul of them, and would cause obstructions; and I really do think that the colliers cannot be moored in a cheaper or better way than they are at present, both for general working, and every thing that concerns them.——Mr. *Cousens.* The wind blows three parts of the year from the south and south-west, and sometimes the upper tier of colliers becomes the second tier, and so on. No moorings would hold vessels of that description in a heavy gale of wind. I have myself seen 20 vessels in a gale of wind, going away from Bell wharf; and such has been the effect of heavy gales on the tiers of shipping in that part of the river, that the tiers have actually been blown down to the entrance of the Surrey Canal. I am satisfied that no mooring-chains would hold them, either on the north or the south shore.——Captain *Fisher.* I wish to impress upon the committee the utility of keeping the colliers moored as they are at present; and not having any buoys or moorings. If buoys be placed in the river, the collier-tiers must be kept in one fixed position; and if that is carried into effect, see what a bank of mud will arise between the tiers! Now they keep the water deep by scouring that part of the river in which they lie, and if permanent moorings were laid down, there can be little doubt that the space between the tiers would fill up in a very short time. There is a very good proof of this to be found in what has occurred since the taking away the tiers off Shadwell dock; there formerly used to be 18 feet of water there, where there is now only 14; and if the colliers were moved from the north to the south shore, in my opinion that place would be very shortly filled up, and there would be no room for vessels to pass either up or down the river.

1591. *Chairman.* Does what the harbour-masters have said make any impression on you, Captain Maughan, as to your moorings?—Not at all. If this tier, to which I am pointing, was made fast, it would stand the effect of the wind, as well as the tide. The outside vessels, being fixtures, would not allow the other vessels to move beyond a certain limit. All the mischief which is now done is done at low water. I have been a great many years engaged in the coal-trade, and I can speak from a long experience of the river, and I know that most of the mischief occurs when the vessels begin to smell the ground.

1592. *Chairman.* What do you think of that, Mr. *Prescott*?—Mr. *Prescott.* I agree with Captain Maughan that there ought to be some moorings laid down to keep the shipping from blowing to the south-west. With regard to what some gentleman has said about the space between the tiers filling up, I think that when the tide runs down, the more water a ship draws the more she would clear away. We all of us know that when ships are moored in tiers, they cannot range about as they do at present.

1593. Mr. Prescott, having had an opportunity of looking at these plans, which of them do you think the most preferable for preserving the navigation of the river?—That one [*pointing to one of the plans*].——*Q.* You are aware that between these tiers which are here delineated and the upper tier at Limehouse Hole, there is a good deal of shoal-water?—*A.* That is because there are no ships lying there: where the ships are allowed to lie the ground does not fill up.

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1594. Sir *John Hall.* If ships were moored according to the plan proposed by Captain Maughan, it has been said by the harbour-master that mud would collect between the tiers: now it is known to all of us, that a number of ships are moored in this way off Deptford, and we know that no mud collects there.

1595. Captain *Fisher.* You may call them ships, but there are only two or three light timber vessels there, and it is deep water. What I was alluding to before was the Upper Pool, in which, if there were any fixed moorings placed, there would be a collection of mud and stuff between the tiers: if I did not think so, I should have no objection to have two or three mooring-chains put down; but besides my objection to the expense, I think it would decrease the water, and that the tiers would not lie so well; but being kept in one position at present, they are allowed to move up and down, and they thus scour the bed of the river.

1596. Mr. *Prescott.* Captain Fisher says, in the Upper Pool, if ships were moored by mooring-chains, there would be a collection of mud and other stuff; now I understand that the mooring-chains will be in the centre of the tier, so that they do not move with their anchors; and if this is done they will be able to hold on to these mooring-chains without any ground collecting there. We all of us know that there is a kind of a hillock round the place where a buoy is swung; but if the vessels are moored in the Upper Pool, that will not increase the shoal.—Mr. *Bridge.* Do you mean to say, Mr. Prescott, that Captain Fisher is right in his notion that there would be a rising ground between these tiers if they were moored in the way proposed?—*A.* The mooring-chains all outside the tier?——*Chairman.* But wherever the mooring-chains are laid, would the mud accumulate?—*A.* It would, between the tiers.——Mr. *Bridge.* If the ships are kept in a fixed position by mooring-chains, do you mean to say that the ground will rise between the tiers?—*A.* It will, if there is no mooring-chain there.——*Chairman.* But if the moorings are outside?—*A.* They generally moor in the stream; they do not lie on the edge of the tier.——Mr. *Bridge.* If the ships can be kept in one fixed position, you do not think that there would be any rising of mud in the tiers?—*A.* I do not.

1597. Mr. *Cock.* I have one or two questions to put to Mr. Neal, who is a waterman and lighterman. You heard the question on the subject of placing this buoy; I believe you have been in the habit of laying down a great number of them?—Mr. *Neal.* A great many.——Q. You laid down those for the London Dock?—*A.* I did; every one of them.——Q. Is there any accumulation of mud or sand in the neighbourhood of those buoys?—*A.* Certainly there is.——Q. Would that affect the tiers of colliers, provided those buoys were laid down with mooring-chains, as proposed?—*A.* I do not see that it would; but it would affect the craft that were getting in and out of the tiers.

1598. *Chairman.* Captain Maughan, you are at liberty to ask any question of the witnesses present, in explanation or in support of the plan which you have submitted.

1599. Captain *Maughan.* Do any of you think that mooring vessels with a single chain would occasion such an obstruction as to prevent the colliers getting into the tiers? The plan is, to have a stone sunk at each end; and the question is, do you think that that stone would occasion the ground to fill up?—No, certainly not.

1600. Captain *Fisher.* Do you think that there can be any better plan proposed for mooring colliers than the way in which they are moored at present?—I do not see that there could be any better plan.

1601. Do not you think that if buoys were placed, a great deal of damage would accrue by vessels going over them, or by the hanging of the chains right in the way of the vessels coming up or going down?—There would, but not whilst the vessels were made fast to them.——Q. The chains are only to mark the line of the outside tiers, and to keep the vessels in a fixed position?—I think the plan a good one.

1602. (To Captain *Maughan.*) Have you observed the obstructions which are stated by Sir John Hall to be constantly taking place in the Pool?—I have, very repeatedly.——Q. What has been the cause of it?—*A.* The wind shifting from the south-west to the north-west; and to guard against which is the reason that I proposed these stones should be laid down.

1603. Do you think it possible that if there was a bye-law to keep 300 feet of clear passage-way, that those 300 feet could be preserved at all times?—Certainly I do; if you put these stones at 300 feet from low water, with a 42-feet chain at the bottom of the river, the vessels will not go out of the tier more than from 30 to 50 feet.——Q. If you put so many vessels in a tier, to be moored in the way you suggest, do you think they would hold their ground in a gale of wind?—*A.* Certainly I do.

1604. I perceive by a return that 379 vessels passed into your dock from Christmas last, 82 above 250 tons, and 250 below that standard; perhaps the same number has gone down: will you be good enough to state to the Committee whether there has been any difficulty in their transit, or if any damage has occurred?—No particular complaint has been made to me, nor have I seen any.

1605. There has been less than 300 feet clear passage at times?—I am quite sure of that; I may say that I have known vessels to be detained at the entrance of our dock for half an hour or an hour, and not able to get down.——Q. That was going over the flood-tide?—*A.* Yes.——Q. And the obstruction was caused by the vessels that were coming up the river?—*A.* Yes.——Q. I wish to know whether the loaded and heavy barges that are coming up the river, or vessels of 700 or 800 tons that are being towed by steamers, cause most obstruction?—*A.* There cannot be two opinions about that.

1606. Mr. *Hale.* Captain Maughan, supposing that the colliers were to be moored according

cording to Sir John Hall's plan, on the south side, would that be very injurious to the interests of the London Dock?

1607. Captain *Maughan.* I beg to hand you a small plan that I made since our last meeting. On that occasion it was stated by Walker, one of the pilots, that our buoys were not impediments to the navigation of the river; and after having been particularly asked that question, he got out of the answer by turning his head round. It struck me as being rather remarkable, that a man of his experience should be so at a loss, as to admit that vessels lying at Bull Dock would not occasion an interruption to the navigation. I have drawn the little sketch which I have just handed in, and I have not taken 25 feet for the average width of each collier, but I have taken something less than 25; the result of which is, that three vessels lying at our buoys will not leave a channel of 40 feet: and I am perfectly satisfied that the plan proposed by Sir John Hall is well calculated to destroy that entrance to our docks. As soon as the tiers shall have been placed in the way proposed by Sir John Hall, a week will not have elapsed before the buoys at the entrance will be declared a nuisance, and up they must come. In the St. Katharine Dock plan, the Bull-head dock over-reaches the limits of the London Dock moorings. This is a letter which I received in answer to my inquiries as to the space occupied by each collier in the Pool. It is dated 6, Holland-street, 31st of July 1835, signed John Smeaton, and is addressed to myself:

1608. "Sir, Agreeably to your request, I have this day taken the measurements of such of the colliers as are boomed off in the several tiers in the Lower Pool, and find that the space occupied by each collier averages 20 feet 4 inches, and in no case exceeds 21 feet."

1609. Supposing that all the colliers were moored on the south shore, and that several vessels were coming up at the same time, would not great confusion be occasioned by all of them having to wait at the entrance of your dock at the same time?—That was an observation that was made to me by a gentleman whose name has been mentioned here, as one who has signed the petition handed in by Sir John Hall, Mr. Soames, one of the largest ship-owners in England. I called on Mr. Soames, when we discussed the matter together; and I will now repeat to the Committee the very words which he uttered to me. He said, I told the directors of the London Docks, that until they had an entrance at Shadwell, I would never bring up a ship to their docks; and I now tell you most distinctly, that if the colliers are moved from the north to the south side of the river, I will never risk a ship of mine of 600 or 800 tons in your docks again.

1610. In the event of the ships being moored on the south side, do you think that it would be practicable to allow your mooring-chains to remain as they are?—Certainly not; for there is no doubt that all the trade of London would join against it, and declare it to be a nuisance.

1611. Captain *Fisher.* In point of fact we perfectly agree with each other in one thing, that if the channel be altered in the way proposed by Sir John Hall, the London Docks must at once shut up the Shadwell entrance.

1612. Mr. *Cock.* I believe, Captain Maughan, you have been acquainted with the River Thames a great many years?—I have.——*Q.* How long?—*A.* I was a boy on it in 1802, and I was a master in the coal trade in 1808; since which I have been engaged in the Hamburgh trade.——*Q.* You consider yourself practically acquainted with the navigation of the river?—*A.* I do.——You have been dockmaster of the London Docks how long?—*A.* Four years.

1613. I wish to ask you, is there any one thing that occurs to you in favour of the plan of the St. Katharine Dock Company?—Not one.——*Q.* Have you any doubt that if that plan be carried into effect it will be destructive of the interests of the London Dock Company?—*A.* I am positive of that; I cannot doubt it. We had the sets of the current taken yesterday, to prove that the tide sets along Mill-hole tier; and this was a drawing which was made upon the occasion, [*handing it in to the Committee.*] If the plan proposed by Sir John Hall be followed, and the channel is kept where the tide sets the strongest, the whole of the tiers which are shown here must be taken away.

1614. Mr. *Cousens.* A great deal of impression has been made upon the mind of the Committee with regard to the wind blowing principally from the south-west. Now, with the ebb-tide running round Mill-hole stairs, if the plan of Sir John Hall be carried into effect, where in the winter season must the ice go to?—To the northward.

1615. Then, with the ice going to the north, and the tiers being on the south shore, there will be no free passage any way?—It is no uncommon thing for vessels going down the river with a strong south-west wind to hang on our buoy until the coast be clear for them; and if these vessels be moored on the south shore, all the vessels going to leeward will have no place to resort to, and there will be such a confusion in the river, owing to the obstruction caused on that account, that the navigation must be impeded and stopped altogether.

1616. Mr. *Hale.* I wish to ask you whether it would not have the same effect on the coal-craft if the wind was blowing on Duke's Shore?—The coal-craft are intended to come up the north shore.——*Q.* But could the coal-craft get to the south side with the wind blowing from the south-west?—*A.* They could not get up their ships.——*Q.* If the colliers were moved on the south side what effect would that have on the Surrey Canal entrance, on the Bull-head dock, and all the docks in that neighbourhood?—*A.* They could not get any vessels in, and they would be obliged to go into the Ratcliff-cross dock, or thereabouts.

1617. Mr. *Pashley.* I wish to ask the Captain one or two questions. With the wind

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west, and with a flood-tide, I wish to know from Captain Maughan at what part of the Pool he thinks the obstruction is?—(Captain *Maughan.*) Certainly the lower part.——*Q.* What do you conceive to be the cause of that?—*A.* It being the narrowest part of the river, and there being more vessels there than anywhere else.——*Q.* Is not the tide one of the causes; is not there a slack there at the south side, between the colliers and the south shore?—There is a slack to a certain extent.——*Q.* Is there not a very great slack?—*A.* I do not dispute that there is a slack tide there.——*Q.* But the ebb runs pretty strong, does it not, on the south shore?—*A.* Certainly it does.——*Q.* Will the greater obstruction take place there?—*A.* No doubt of it.——*Q.* If ships are removed from the south to the north shore, will not the tide run stronger on the south shore, and cause the vessels to drive their regular course much quicker than they now do?—*A.* On the south shore the tide runs up pretty strong.——*Q.* By the tide running stronger on the north than on the south shore, would it not cause the vessels to drive faster and leave the channel open and clear for vessels coming down?—*A.* It certainly would, so far as the tide went, but you would increase the difficulty of the navigation twenty fold.——Mr. *Cock.* Does anything else occur to you, Captain Maughan, by way of explanation?—(Captain *Maughan.*) Not anything at present.

1618. *Chairman.* I should like to ask Mr. Prescott one or two questions with regard to these 300 feet clear channel. Have you not given up business of late years, Mr. Prescott?—(Mr. *Prescott.*) No, I have not; I should be very happy if I could afford to do so.——*Q.* Have you, during this last few months, found any very great inconvenience in consequence of the narrowness of the channel of the river?—*A.* No; and I mean to say that every pains has been taken to keep the channel clear; neither is the state of the Pool anything like what it used to be formerly.——Is it much more convenient than it used to be formerly?—*A.* Much more convenient.——*Q.* For some months have you experienced any serious inconvenience?—*A.* I cannot say that I have myself, but there is always a difficulty, and always must be, let the tiers be placed in whatever way they will: the fact is, that when we enter the Pool we always expect to fall into difficulty.

1619. Captain *Fisher.* This difficulty has occurred, not exactly from the state of the collier tiers, but from the immense quantity of vessels passing up and down?—Up and down in the same channel with myself.——*Q.* Are not large vessels of 600 or 800 tons burthen very likely to cause obstruction to other vessels that are navigating the river?—*A.* Certainly, very great ones.——*Q.* Is not the principal cause of the obstruction met with in the River Thames, the introducing of large vessels so high up the river?—*A.* Not that particularly; there are a number of obstructions that vessels may meet with, even if they are able to sail down with a fair wind.

1620. Mr. *Hale.* Do you concur in the opinion which has been given with regard to moving the ships from the north to the south shore; and do you think it would inconvenience the London Dock entrance?—I think it would be a great inconvenience altogether. I do not think the vessels would lie there for six months before they would be obliged to shift them back again to the north shore.——*Q.* What effect would such an arrangement have on the Grand Surrey Canal?—*A.* It would block up their entrance entirely; you would not be able to get a ship into the Surrey Canal at the top of the tide; you could not get them into that dock.

1621. I believe we are all agreed that the wind blows for three parts of the year from the south or south-west: supposing that there be 300 feet left for a clear passage, has not the wind a considerable effect on the vessels, by blowing them from the position in which they are moored?—If they are moored on the south side, the effect would be to drive them to the northward, on which the tide sets.

1622. Now, have there been many accidents in the river of late?—Very few; I never knew a period when there were less.——*Q.* Do you think that accidents will be diminished by mooring the vessels on the south side?—*A.* Not at all; there will be more confusion.——*Q.* Do you not think that the accidents would be increased?—*A.* I think there would be more confusion; I cannot say that there would be more accidents.

1623. Is there not on the south shore a slanting kind of bank, near to which you come to deep water on that side?—Yes.——*Q.* Suppose the wind blowing from the north, and the vessels were moored in the way which has been proposed, would not that wind blow them into the shallow water?—*A.* It is likely that they would get aground.——*Q.* What would be the effect of a vessel getting into that shallow water?—*A.* It is very likely she would strain herself.

1624. Under these circumstances, the ship-owners would then be much better protected, by the ships being moored on the north instead of the south shore?—I stated that the Pool could not be altered for the better. There always must be some difficulty. Every pilot expects to meet with more or less difficulty when he comes into the Pool.

1625. It has been stated, that by mooring the colliers on the south instead of the north shore, vessels with a large draft of water, and 500 or 600 tons burthen, will be enabled now to come up the river; do they bring such ships as these up at low water?—They cannot until the tide has flowed a certain time. But there is a deal of obstruction to be met with between Deptford and Limehouse-reach, where these tiers are.

1626. Suppose the vessels were moored on the south side, what would be the effect on the coal-craft; would not they have great difficulty in getting alongside of the colliers in these tiers?—They would drift their coal-craft on the ebb-tide between the tiers.—Mr. *Hale.* How are the coal-craft to get to the ships on the south shore. Will not they, in attempting to get to Cuckold's Point on the south side, be driven over to Duke's Shore?—The lightermen will not be able to get on board the colliers.—Mr. *Hale.* If the ships are moored on the

the south side, will not they be damaged by getting on shore?—If they go on shore they are likely to meet with damage.——*Q.* Do the whole of the pilots concur in the opinions which have been given by Mr. Prescott, or do any of them differ from him?—*A Pilot.* I think we all concur with him.

1627. Captain *Fisher.* Since the St. Katharine Docks have been built, have you not observed large vessels of 800 tons coming up the river with a steamer at high water?—I have heard that such has been the case, but I cannot say that I have myself seen it.

1628. *Chairman.* If any of the pilots dissent from what Mr. Prescott has stated, let them inform us of the reasons of their doing so.—*A Pilot.* I believe we all concur with him.

1629. Mr. *Bridge.* What has been the greatest width that you have ever seen in the channel, at any period, when there has been an obstruction; state what you have seen?—I cannot say that I have ever taken any notice of it. If I had been aware that these questions would have been asked me, I would have been prepared to answer them.

1630. But you can say what, at the time when you have perceived any obstruction, was the width of the stream that was navigable?—I really cannot say, for I have never taken any very particular notice. Whenever the wind blows hard from a particular quarter, it sends some of the tiers into the mid-channel; but I do not think that, generally speaking, the Pool was ever in better order than it is at present.

1631. Mr. *George Smith.* Mr. Chairman, I attend here on behalf of the coal-trade, and having measured some of the tiers of colliers in the river, I wish to give evidence as to the extent of their measurement, and to be allowed to examine one or two captains of colliers. My evidence would go to the space occupied by the tiers, in contradiction of what has been stated by the St. Katharine Dock Company.

1632. *Chairman.* Will you state the particulars which you have been enabled to collect?—Mr. *Smith.* In the petition presented by Sir John Hall, I believe it is stated that the colliers occupy an average space of 25 feet each. On the 21st of July, I measured 21 ships lying at Stone-stairs, and they actually measured, from the outside to the inside, only 444 feet.——*Q.* What is that each?—*A.* That is 21 feet each. I measured a tier of 20 ships at Bell-wharf, and the actual space that those ships occupied was 423 feet, which gives you 21 feet each. On the 18th of July, I measured 17 vessels at Bell-wharf, which made 312 feet: so that the whole gives a great deal less than what is laid down as the space occupied by a collier in the plan of Sir John Hall. I proceeded to measure the distance from the outside ship to the south shore, and I got 244 feet at dead low water: that was at Stone-stairs, on the 21st of July. The space occupied by the ships is much less than what is laid down by Sir John Hall, and the clear water at dead low-water mark is considerably more?——*Q.* Did you ever turn your attention to this matter at any other time before that day?—*A.* I have been very much in the habit of being up and down the Pool.——*Q.* Have you found this which you have stated to be the average width?—*A.* I never measured it before; but I think that is about the space generally left, except when ships are blown more to the south for a short time.——*Q.* These are your own observations?—*A.* Yes; I therefore say that the petition of Sir John Hall is founded on false premises.

1633. In the official situation which you hold, you must have heard if there had been any complaints made as to the state of the Pool, of its being impeded?—I have not heard any complaints. My own general observation allows me to say, that I think the Pool has been much clearer of late years than it was formerly, and that there has been less inconvenience: I think that it has been a great deal better managed.

1634. Mr. *George Smith.* I now propose to call three or four captains of colliers to speak to this part of the subject.

Messrs. *Howe, Ward, Miller, Frost* and *Robertson,* were then Examined, as follows:

1635. How long, Mr. Howe, have you been in the trade?—Thirteen years.——*Q.* Have you been in the habit of coming up with your own ship?—*A.* Yes.——*Q.* Have you met with impediments in the Pool in consequence of the narrowness of the channel?—*A.* Not many of late years.——*Q.* How lately do you mean?—*A.* Within the last two years it has been much clearer.

1636. You have seen the plan for moving the ships from the north to the south shore?—I have.——*Q.* Do you think that would be an advantage?—*A.* No; I should consider that it would be a detriment.——*Q.* Will you state your reasons for thinking so?—*A.* The ships that lie below the Surrey Canal have no water there at present; that is one of my objections to moving the vessels to that shore. When you get further down, there is a steep shore, and vessels with a strong north wind would most likely be blown on to that shore, and there get aground, and be damaged. On the other hand, with the wind at south or south-west, if you were leaving the Pool, you would be driven on Duke's Shore, where, if you were under sail, you could not get her head round to the tide. I must be driven on shore, or I must let go my anchor to keep off, and that would cause an obstruction to other ships.——*Q.* Supposing that the plan submitted by Sir John Hall was adopted, in coming up the river with a fresh breeze and a flood tide, would you ever be able to do so without dropping your anchor, by means of running a warp to these mooring-craft that are to be laid down?—*A.* Certainly not: we could not make a rope fast to any of these mooring-craft.——*Q.* Would you not be able to run a warp out to hold the ship?—*A.* I could not do so. The strength of the tide would drive me to leeward.

1637. Mr. *George Smith.* The last day on which the committee met I was not able to attend, but I have understood that it was asserted that the colliers will not allow a warp to be made fast to them to assist other ships in coming up the Pool.—*Chairman.* It was so asserted.—

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asserted.—Mr. *George Smith.* Being borne out in that, and it having also been said that they either throw them off or cut them, let me ask you this: you have been in the habit of being up and down the Pool a great many years, did you ever see or know of a single instance of a warp being cut?—Never; on the contrary, I have a great many times seen men on board a collier take hold of a ship's rope and make it fast to some part of their vessel. I have known solitary instances of watermen attempting to make a rope fast to the chain-plates of a ship, and of their having been prevented by the men; but I have never known a case of any one having been prevented from getting a rope made fast to a proper place.

1638. If this plan of mooring the colliers on the south shore were carried into effect, do you think that the pool would be more easily navigated than it is at present, and that there would be less difficulties?—On the contrary, I think it would be the reverse; I cannot see it in any other way.——*Q.* From your knowledge of the coal-craft, you can say whether they would have the same facilities of getting at the vessels if the colliers were moored on the south instead of the north shore?—*A.* I think they would not.——*Q.* In fact would they not be driven on Duke's-shore and lose their tide, and not be able to get up at all?—There is no doubt of it.

1639. Is there any difference as to the risk of their being moored in-shore, or on the outside, or are both positions equally safe?—They are equally safe at present.——*Q.* Would that be the case supposing that the vessels were moored on the south shore?—*A.* Certainly not; I should then prefer being on the outside, on account of the steep shore that I should otherwise be pressed upon.

1640. If you were left dry, what would be the consequence to your ship?—I should expect her to upset. In coming round this point, where we take the lower tier to be, we should have to make our ropes fast to these mooring-craft; and in getting round here, we must run out our kedge, in order to prevent our going on the south shore. While we were making a rope fast, the ship might come right round into this tier, and do a hundred pounds worth of damage.——*Q.* Then you would give her too much rope?—*A.* You could not bring her up without; the tide sets up that shore. Since the southern entrance to the London Dock was made, and the Shadwell Dock tiers have been taken away, there is not more than eight feet water where there used to be 13. If these vessels were taken to the south shore, that would be the case all the way up; the north shore would fill up altogether, and in six or twelve months we should be wanted back again to deepen the channel.

1641. Mr. *Cock.* You were all of you present during the examination of the pilots; I wish to ask you, do you concur, or otherwise, in the opinion which they expressed, that the removal of the colliers from the north to the south shore would have an injurious effect on the London Dock Company?—It would block their lower passage up altogether: that passage is obstructed enough already; and I think there would be no getting down the river on the north shore.——*Q.* Do you all agree in that opinion?—*A.* We all of us agree that there would not be water enough for a ship to get down.

1642. It has been said that the obstructions which would arise from the vessels collecting at the London Dock buoy would be so serious, that the harbour-masters would have to remove that buoy?—They would lie right in the way; and so the ballast-buoy at the Regent's Canal.——*Q.* And being removed, it would of course be destructive of that entrance of the London Dock?—*A.* It certainly would.——*Q.* Has any one of you any doubt upon this part of the case; if so, state it to the Committee, whether you have any doubt, that this new plan would be most destructive to the interests of the London Docks?—Certainly; we see that clearly. The Pool was never better kept than it is now; the harbour-masters take every pains; they make us move, whether we like it or not, so as to keep the passage clear. As I was coming up the lower part of the Pool last week, I was met by a large American ship, being towed down by a steamer; but there was plenty of room for us to pass, and we passed her clear.——*Q.* What space was there in the Pool then?—*A.* I cannot exactly say.——*Q.* In what part of the Pool was it?—*A.* In the lower part of the Pool.——*Q.* Was there less or more space than usual?—*A.* Much about the same.——*Q.* Are there any of you that differ as to the answers that have been given?—*A.* We cannot differ, because we see this daily.

1643. Captain *Fisher.* Did you ever suffer any injury by being kept out of the Pool?—No; I do not see that we suffer any injury. The harbour-masters allow us to bring up 40 or 50 sail at a time; and we never come above Long Reach until we get an order from the harbour-master.——*Q.* Does not great convenience arise from that?—*A.* The harbour-masters keep the Pool clearer now than it has ever been?——*Q.* Do you feel any inconvenience for want of room?—*A.* Not the least; I have been lying down there now for these two or three days.

Captain *Smith* examined.

1644. I believe you are an officer in the royal navy?—I am.——*Q.* How long have you known the river Thames?—*A.* For 20 years.——*Q.* Have you taken notice of or examined either of the plans that are on the table of the committee?—*A.* I cannot say I have taken very particular notice of them, but I must say that I concur most fully in what has been advanced as to the mooring of ships. I conceive that southerly gales being the most prevalent, if this plan of putting them on the south shore is acquiesced in, ships will get on to the mud in Limehouse-hole, and will be obliged to let go their anchor, which will of course be an obstruction, by blocking up the passage.

1645. Are you acquainted with the depth oft he river on the south shore?—I am, generally.

rally. ——*Q.* Do you think there is water enough there for a collier to lie?—*A.* I consider that the south shore is so steep where they propose to put the ships, that with the wind from the north, the inside ship must go ashore, and the shore being so steep she is not likely to get afloat again until the next tide.

1646. If 20,000 *l.* or 30,000 *l.* was expended, and 5,000 *l.* annually, on the south shore, do you think that would deepen the river sufficiently to allow the colliers to lie there?—No.——*Q.* Will you state why you think so?—*A.* The banks of the river being so steep, it would be impossible to do anything with a dredge or lighters to take the bank away; so that vessels would still get aground there with a gale from the north.

1647. If the ships were placed on the south shore, do you consider that the north shore would be blocked up by sand or mud?—I do, considerably. The colliers are constantly moving their anchors, which tends to remove the shoals which otherwise would exist on the north shore. I conceive that if moorings were laid down, they would be better than anchors to keep the ships steady in the tiers; but the objection to that is this, if you cannot bring your anchor parallel with your ship, there would be great difficulty in getting the craft in and out: if an anchor was swung from the bow of the ship, you could very easily get the coal-craft in and out. I have been with 20 men endeavouring to boom off the whole of the tide, and did not succeed after 24 hours, in getting the craft inside: that was at a period when merchant ships discharged in the river.

1648. Captain *Fisher.* You have seen all the plans proposed for the mooring of colliers: do you think they can be moored better than they are at present for general purposes?—I should conceive not. Their anchors are of more advantage to them than having to get to a mooring-chain.

1649. You have been acquainted with the river Thames for 20 years?—Since the year 1818, I have been up and down occasionally; since when I have been engaged in the Baltic trade. I do not consider myself a professed pilot, although I have made these observations.——*Q.* You command a trading vessel occasionally, although you are a captain in the royal navy?—*A.* I was appointed to the command of a vessel in the Baltic navigation, after having served on board one of His Majesty's line of battle-ships.——*Q.* Is that some years ago?—*A.* About two years ago.——*Q.* In your opinion, would 250 feet be sufficient width for all purposes of navigation?—*A.* My opinion is that it would be impossible, in the extensive navigation of the River Thames, owing to the narrowness of the channel, to preserve a greater width. I have never seen the River Thames in better order for navigation than it has been within the last two or three years. I can call to my recollection a period which I dare say many of the pilots present recollect, when a ship's boom in going across the tide would touch on one side of her as well as the other. I think that everything is done by the executive officers in the River Thames to keep it in a state of safety, for the preservation of the navigation and for the benefit of trade.

1650. In your opinion 250 feet is quite sufficient for all the purposes of the navigation of the river?—It would be a positive fact to say so, but that I conceive would be rather too much. I should be very well pleased if I could always have 250 feet clear water for my ship to come up the river.

1651. In passing up the river, what might have been the clear space of water-way which you have observed?—I cannot say, for in those cases I have sometimes left the ship in charge of a pilot; but generally, at the top of high water, there are a great many steam-vessels and other ships coming up with the tide.——*Q.* What might have been about the space left, when you have been pretty full of trade?—*A.* At the top of high water, full 300 feet.——*Q.* Do you think there has been so much as that?—*A.* Yes, I do.

1652. Captain *Fisher.* I wish that these three gentlemen, who are pilots, should be examined by the Committee. They have the conduct of the Scotch smacks up the river, and are persons of great experience and judgment.

Their names having been handed to the Chairman,

Messrs. *Taylor, Penial* and *Huntingford,* were Examined.

1653. From your experience, Mr. Taylor, as a pilot, do you consider that it would be a convenience if all the colliers were removed from the north to the south side of the river, according to Sir John Hall's plan?—Decidedly not.——*Q.* Will you state your reasons for thinking so?—*A.* It would throw the ships coming up the river into a state of confusion, especially when they are all coming up at the top of the tide. If one was obliged to stop, that would stop the whole of them; and there are many conveniences that you can avail yourself of now when you get into difficulties, which you would not have the benefit of if the vessels were removed to the south shore; you would neither be able to stop your ship, nor to proceed, so well as you can do now.

1654. Have you found great inconvenience to arise in consequence of the narrowness of the channel in the Lower Pool?—For the last four or five years it has been much better than it was formerly, considerably better.

1655. Do you agree generally in what was stated by the pilots who were examined this morning, and with the captains of colliers, or do you differ from them?—We agree with them in opinion.—*Q.* In anything that you differ from them we shall be very happy to hear your observations.

1656. *A Pilot.* I should like to ask any one whether they do not like to keep in the set of the tide, when they have got the buoys of the Regent's Canal to contend with, besides the buoys of the London Docks and the Trinity House buoys? If you throw out your

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kedge, and put the ship's head to leeward, all the strength of the tide is on her stern, and will drive you on the ground.

1657. Do you think that the mooring the colliers on the south side would cause all this which you have stated?—Certainly; you must go with the stream if you want to get your ship up in anything like time; and if you go with the stream, you will most likely get in among the craft and the other obstructions, and some damage will occur. If you are to have these lumbering things to moor your ships to, I ask any nautical gentlemen how they would like to lie-to there with a vessel drawing 17 or 18 feet of water? I would rather leave my station, and take my chance in the Pool. If I am bound to St. Katharine's Dock, and I want to go to windward of a man who is coming down, and he says Ho! you must slack down, what am I to do? That will be the cry all the way up the river, and I should never be able to hold on my ship to one of these mooring-buoys; the consequence is that I am obliged to run alongside of one of the wharfs.

1658. If you were coming up on the flood-tide, you could make use of these mooring-craft to cast a rope to?—It would be impossible to bring a vessel up in that way, as any nautical gentleman here will bear witness to. You could not make fast a rope to any of these lumbering things. The only thing that vessels that are coming up as high as St. Katharine's Dock could do, would be to let go their anchor.

1659. You are in the habit of bringing smacks up the river very frequently?—Yes, I am.——*Q.* Do you think, if there is sufficient room in the Pool to turn a smack, that there is room enough to tow a vessel through the river by steam?—*A.* Certainly, I do.——*Q.* You have known the River Thames for how long?—*A.* For seven and thirty years.

1660. Have you ever met with any difficulty in bringing vessels up?—A very great deal some years ago, but not of late years. We come up with vessels of from 200 tons by night as well as by day. In my opinion the Pool was never in a better state than it is now, as regards the safety of the shipping in it. If the Pool is crowded with colliers on the north shore, you have an opportunity of bringing your vessels up on the south side when there is a flood-tide.

1661. Do you think that for the general purposes of navigation it is necessary to have 300 feet in the Pool at low water?—My opinion is that 250 feet would do very well.

1662. *Chairman.* You think 300 would do better?—Certainly; 1000 if you like. Where you now are enabled to bring up your vessel on the south side, you would not have that opportunity if this new plan was carried into effect. You are now better able to move your ship to windward than to leeward; for, if you were to drive to leeward, there are such numbers of coal-craft at the different wharfs, that you would be in danger of sinking some of them. There are a number of ships now lying at the dock buoys, and if you lay down mooring-chains the obstruction will be increased, and there will be no getting by at all.

1663. When you are coming into the Pool at the lower part, if there be any difficulty you can turn your ship about to the south?—Certainly.——*Q.* By doing so you are enabled to avoid the danger that you might be exposed to if you continued your course in the mid-channel?—Certainly. When we are coming down with any vessel, smack, brig, or ship, supposing the wind to be at south or south-west, we hug the shore there, so as to get clear of Limehouse-hole; but if tiers were moored where it is proposed to place them we should not be able to do so; and if we wanted to bring up at Hanover-hole, after the tiers have been shifted, there will be so little water as to prevent us. There is one shoal abreast of the Regent's Canal, and another above Limehouse-hole tier, which are as hard as a rock; and if we anchor to avoid going on these shoals, even one vessel will cause an obstruction to all those coming up.

1664. Are you a waterman or a lighterman?—I get my living by conducting vessels up and down the river.——*Q.* Then although you have not passed the Trinity Board, you are in fact a pilot?—*A.* Yes.——*Q.* Do you pilot Scotch smacks?—*A.* Yes.——*Q.* About how many do you bring up in a year?—*A.* In 1834 I was up and down the river with 236.——*Q.* Do you think any pilot in the river has done that so often in one year?—*A.* I really do not know. There are a great many pilots in the river.——*Q.* But you think your experience is greater than the general body of river pilots?—*A.* I have been up and down oftener.——*Q.* And you are competent to give an opinion on the subject?—*A.* I hope so.

1665. If it has been stated that a great deal of damage has been done to the shipping by the present arrangement, do you confirm that, or not?—I think there has been damage done in the Pool—a good deal.——*Q.* To any extent?—*A.* Yes. There was a ship a little while ago coming up the river, towed by a steamer, and she went right into one of the lower tiers, and did a great deal of damage.——*Q.* That was not occasioned by any obstruction in the river?—*A.* It was from imbecility, from not knowing better.——*Q.* It did not arise from there not being sufficient water-way?—*A.* Certainly not.

1666. What damage did you experience in 1834 through the narrowness of the channel?—I do not recollect any.——*Q.* You say that the state of the river, for the last few years, has been better than it used to be?—*A.* Decidedly so; there can be no comparison.

1667. Do not the pilots generally have a waterman on board?—Yes, most of them.——*Q.* A great deal of the management of the vessel rests with them, does it not?—*A.* I cannot tell; perhaps some of it: but there is a great deal of difference in pilots.

1668. Do you know anything about the Grand Surrey Canal?—No.——*Q.* You do not know what effect it would have upon them?—*A.* It would have the effect of blocking them out—that is pretty evident.

1669. How would the dry docks on the south shore be affected by it?—It would be a very great impediment to them, no doubt.

1670. Do

1670. Do you think it would be a serious inconvenience to the trade of the port of London to have these vessels brought on the south shore?—I think it would be attended with general inconvenience to the whole shipping interest. The danger would be considerably greater than it is now. I have been in conversation with some captains of ships as to this plan, and they have said they would not lay their vessels on these moorings for any consideration. You would never be able to hold colliers in tiers by these stones if it came on to blow.

1671. Mr. *Hale.* You have nothing to complain of, in regard to the present mode of arranging the vessels?—Nothing whatever.——*Q.* There are all the conveniences that the trade requires?—*A.* All they can require.——*Q.* And they do not want any better?—*A.* None whatever.——*Q.* Do you believe the proposed alteration would be for the worse, and not for the better?—*A.* It would be impossible for the coal-craft to get alongside the ships for delivery. No man would be able to lug a barge alongside any of the ships that lie here [*pointing to the plan*].

1672. What do you think of the plan of having collier docks; would that be practicable, either in the Isle of Dogs or on the south shore?—I can merely state what I did to the Committee of the House of Commons, that it would very much injure the coal-trade, and greatly increase the price to the public: we should be obliged to employ two lightermen where one now does, and double the number of craft.

1673. Mr. *Hale.* I have had a memorial committed to my care by the coal-trade, signed by nearly 100 persons, which I beg to hand in to the committee.

The Memorial was read as follows:

1674. To the Worshipful the Port of London and Navigation Committee, the memorial of the undersigned owners of coal-barges, showeth, That the plan for mooring colliers submitted to your committee by the St. Katharine Dock Company seems to your memorialists to be wholly impracticable. Your memorialists beg to state that they have, upon a former occasion, incurred a very considerable expense in surveying the Collier Pool, the result of which confirms them in their opinions as practical men, that the plan laid down by your committee is the best that can be devised. Your memorialists therefore pray, that your committee will persevere in recommending the adoption of your plan, which has been so generally approved.

T. W. & F. Horne, Bankside.
David Pegg & Son, Old Bargehouse.
Pocock & Sons, Bride's Wharf.
Edward Hood & Co. Northumberland Wharf.
Holl & Bevan, Milford Wharf.
D. P. Clowes & Co., Ratcliff Cross.
Stephen Davies, Bankside, and 80 others.

1675. Sir *John Hall.* It is my wish to ask a few questions of the collier captains.

The captains of colliers who had been examined by Mr. G. Smith were called in and examined by Sir *John Hall.*

1676. If I understand your objection to moving the colliers from the north to the south shore, it proceeds upon an assumption that the coal-craft will not be able to get to the ships inside, but must go outside?—The south-west wind will set them into the Shadwell dock.——*Q.* What is to prevent the coal-craft going to the south shore before they come to Shadwell dock?—*A.* They will not have the same convenience.

1677. At present it is calculated that there will be 50 feet between the innermost ship and low-water mark. Supposing that the innermost ship should lie 50 feet from low-water mark, in a depth of 13 feet, what is to prevent the coal-craft from coming inside and visiting the ships as well, in fact better, on the south than they do on the north shore?—They cannot get there; the wind and tide will not let them.

1678. Opposite to Execution dock, above Wapping, the tide sets to the south shore?—Undoubtedly.——*Q.* When the tide sets over to the south shore, assuming for a moment that the tiers are to be placed there, the man has nothing to do but to keep the south shore, instead of dropping over to the north?—*A.* The tide sets into Hanover-stairs, or Church-hole, and then it alters its course, and goes directly over into the bight by Cole-stairs; how can a man lug a barge along the slack shore?——*Q.* I should say that being slack water it was easier for him to keep the barge in the river?—*A.* That is not slack tide on the inside.——*Q.* Then, according to your statement, it is so much the better?—*A.* It would press the craft on the south shore, if the shipping was there.——*Q.* We will assume that the tier is off the Pageants; I wish to ask you, as practical men, what would be the difficulty for a lighter to come in-shore, and visit any one of the ships on the south shore by dropping down?—*A.* The tide would press them too much on the shipping, and they would get athwart hawse.——*Q.* Is there not the same difficulty, and the same risk, when you have got a tier lying at Ratcliff-cross?—*A.* Not at all.

1679. You prefer a navigation of angles, do you not, in a zig-zag way?—No.——*Q.* Here you have a straight navigation?—*A.* I contend, as a river sailor, knowing something of the matter, that it is not so good to have a long log as a short one.——*Q.* You like going in here, and coming out there, and so on?—*A.* Yes, let me have the wind where I will.——*Q.* I should say, if I drove a carriage, I should like to go in a straight line, not through the hackney-coaches and cabs, and so on; and I should prefer navigating a vessel in the current to tacking about?—*A.* If you compare it even to steam navigation, it will not do.

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1680. There is one other objection which the gentlemen made, as to ships coming down and running over the flood; when you bring up here [*pointing it out*] you go over to Duke's Shore?—That relates to the vessel that is there with the ballast.——*Q.* Why do you not take the ballast in in the tiers?—*A.* We cannot do that.——*Q.* Does not your being in the stream cause a complete obstruction in the river?—*A.* If you leave a ballast-lighter off the ships in the tiers, how can the coal-craft come in.

1681. When you run down over the flood, it is generally an hour before high water, when the river is at its broadest width?—We sometimes do not move until high water, but we do so as soon as we can clearly see our way.——*Q.* I understood you to say that there would be a difficulty in the event of the wind not being fair, when you must stop until high water; I put it to you, as a practical man, whether within an hour of high water there will not be at least 100 feet preserved there, and whether that is not sufficient for a light collier to run over?—*A.* We are not always light.

1682. Mr. *Hale.* I think it would be better if Sir John Hall were to put his questions in a more straightforward way, and not argue on the matter.

1683. Sir *John Hall.* I never, in the course of my experience, witnessed a greater latitude than was allowed to the examination in chief, and I never interposed a single objection. All I want is, that the facts may be stated to the committee free from misrepresentation; and I should have imagined that the gentlemen would have thanked me for endeavouring to remove any misconception that they may have laboured under.

1684. *Chairman.* When you argue the question with a witness, it sometimes confounds us, and we do not get so clear an idea of the fact as if the question was put in a more direct shape.

1685. Sir *John Hall.* You should recollect that I am placed in a situation of some difficulty. Thirty or forty witnesses have been examined, and I have had no opportunity of cross-examining them at the proper period. I have had no individual to take down the evidence for me, or render me any other assistance; but I will proceed. I would ask you, supposing the colliers to be lying on the north shore, with the wind from the northward, how much do you think the wind would blow them over to the south shore?—With a slack tide some 60 or 70 feet, perhaps double that if the tide was very strong; but if the anchors held fast I do not think they would get away more than 30 or 40 feet.

1686. It has been stated that the effect of the north wind is to drive the tiers of colliers over to the south shore?—Yes, it is.

1687. I only want to know from you, as a practical man, how many feet do you suppose, taking it on an average, they would blow over towards the south shore when the wind is blowing from the north?—If the anchors held fast I do not think more than from 30 to 40 feet.——*Q.* Do not the anchors come home sometimes?—*A.* Yes, sometimes.

1688. The mooring of the ships on the south side is made conditional. I never suggested that the vessels should lie there unless they were moored. If the Port Committee should be of opinion that proper moorings ought to be laid down, of course they will say so.

1689. *A Member.* Is not this argument instead of putting a question?—Sir *John Hall.* I have done.

1690. (By the *Committee.*) Would not what you have stated apply to the south side if vessels were secured in the same way?—There is more pressure on the south shore from the north wind than on the north shore from the south wind, because we have the shelter of the houses and wharfs on the north shore; we are more open and exposed on the south. ——*Q.* But the same operation would take place by the south wind blowing the vessels on the north shore?—*A.* The tide has more power here than there [*describing it*]; it would have a greater effect on the broadside of the vessel if she was in that position.——*Q.* Do you, as a practical navigator, object to the principle of a man searching for the set of the tide, and the deepest water?—*A.* Certainly not.——*Q.* Do you agree in that principle?—*A.* I do.

1691. So far as regards the 300 feet, if ships were laid down 23 in a tier, with the wind from the north pressing them over to the south shore, do you think it will ever be possible to keep a clear channel of 250 feet?—I never measured the distance in the river; it is only matter of opinion.——*Chairman.* He has answered that no inconvenience would be found.

1692. Sir *John Hall.* If you imagined that I thought the gentlemen in the coal-trade wished to have any alteration, you have very much deceived yourselves; I did not expect that any of them would come here with the intention of supporting my plan.

1693. Have you seen the plan of the London Dock Company?—No.——*Q.* If moorings were to be laid down, secured by stones for ships to moor to, do you not think that would have the effect of relieving ships from the wear and tear of their ground-tackle, by their not having to let go their anchor?—*A.* It might be the means of stopping up the Pool.

1694. Why should it do that if the buoys were laid at proper distances, so that the vessels did not press inwardly? It is proposed that they should be laid at regular distances, not one over the other. If you have proper buoys laid down, the effect would be to give you the means of putting the craft between the ships?—The effect of the tide would be such as to press them on the shore.

1695. It is said there are fewer ships in the Pool now than at any previous period. Has not the number been less than on any former occasion?—I think not. Last year I was stopped below for some time, and not allowed to get into the Pool in time enough to begin work: now we are allowed to have from 30 to 40 sail up at a time, quite a sufficient supply for the market.——*Q.* How many in fact are there in the Pool just now?—*A.* I should say perhaps about 200 sail have been accommodated in the Pool for the last six months.

1696. Sir

1696. Sir *John Hall.* Captain Fisher, how many are there in the Pool at the present moment?—Captain *Fisher.* About 160 sail.——*Q.* Is that rather more or less than the average for twelve months?—Captain *Fisher.* It is less in the summer than in the winter months, because people do not of course consume so much in the summer as in the winter season.

1697. Have you not had many instances within these six months when you desired the captains of the colliers to come up in the Pool to keep the tiers steady?—Captain *Fisher.* I suppose you have heard the evidence of the captains of the colliers?—Sir *John Hall.* But I would rather have it from you.—Captain *Fisher.* There are about 40 sail permitted to come up at once. We give every facility to the parties for discharging their cargoes, and sometimes we let more colliers up than is necessary to supply the market, in order to keep the tiers together; for when a tier is full it lies much better and more steady than when it is not full.

1698. Mr. *Hale.* There is a regulation by which not more than a certain number of colliers are admitted into the Pool at one time, I believe it rarely exceeds 150 sail; and there is generally quite a sufficient lot of ships to supply the market to the full extent of the demand.

1699. Mr. *Smith.* I believe I have very little further to add to what I have already said upon this subject. I appear here on behalf of the Surrey Canal Company. I do not wish to meddle with or say anything upon the general question; but if this plan of Sir John Hall's be carried into effect, it will stop up our entrance. If you deepen the water as you propose, and put the collier-tiers on the opposite side of the river, no ships will be able to enter our docks. The entrance will be completely blocked up.

1700. Mr. *Hale.* Do you wish the Committee to understand, that, supposing they agree to the mooring of the ships on the south shore, it will be productive of very serious injury to the Surrey Canal Dock Company?—There is no doubt of it.——*Q.* And that there would be very great difficulties to encounter in getting ships into your dock?—*A.* Certainly there would.——*Q.* You do not approve of Sir John Hall's plan?—*A.* I do not approve of his plan.——*Q.* Is your objection confined to the difficulty of getting ships into your dock?—*A.* I believe that is the only thing that we have any business to interfere with.

1701. What is the size of the vessels that enter your dock?—Not more than 500 tons, generally about 300.——*Q.* Supposing this plan was adopted, do you think that the effect would be to deter parties from sending ships to your dock?—*A.* There can be no question about it.——*Q.* Do you experience any inconvenience at present?—*A.* We do, considerable: we are put to considerable inconvenience by the tier which is shown on this part of the plan (*pointing to it*). The vessels frequently drive down on our privileged water, and if the harbour-masters did not send them back we should be put to very serious inconvenience. We do not wish to draw the line too close. The colliers now know that they trespass on us, and generally move off our ground when they are ordered to do so; but if this plan was approved of, and these tiers were legalized, they would then consider that they had a right to come there, and would not mind what any one said.——*Q.* You think that your present difficulties would be much increased?—*A.* There can be no question of it.——*Q.* Do you see any sufficient reason for making the alteration proposed?—*A.* Certainly not, as regards us.

1702. What is your opinion of the present state of the Pool?—In my opinion the Pool at present is much clearer than it has been for these twelve months.——*Q.* Is it your opinion that the state of the Pool has been better within the last twelve months than it was for the twelve months preceding?—*A.* I should say so decidedly: we have found the inconvenience much less of late than formerly. We used more frequently to have to call for the assistance of the harbour-masters than we do now.

1703. If the tier gets down as far as the entrance of your dock, you then apply to the harbour-masters for assistance in the extremity. Is not every attention paid to remedy the evil?—Yes; but sometimes it is out of their power to remedy it.

1704. You stated that within the last twelve months the passage in the Pool had been better than it was formerly; does that arise from there being less business to do, or from the harbour-masters having kept the harbour in a better state than it used to be kept?—I think so.——*Q.* The business has not decreased?—*A.* I think not.——*Q.* But rather increased?—*A.* I should think so.——*Q.* And there are more ships accommodated now than formerly?—*A.* There are. I should certainly recommend that moorings be laid down to confine some of the tiers, and then we should not have to complain of the colliers encroaching upon our privileged water.——*Q.* But, notwithstanding that slight inconvenience, you are tolerably well satisfied at present?—*A.* We are.

Mr. *Samuel Travers*, Secretary to the Grand Surrey Canal and Dock Company, Examined.

1705. I believe you have seen the plan of Sir John Hall, as well as that proposed by the London Dock Company, for mooring of colliers in the river; which of them do you prefer?—I am not calculated to give a practical opinion upon the subject, not being in that department; but from all that I have heard, and from all the practical information which I have been enabled to derive, I believe there can be no doubt that the present system of mooring colliers is the most efficient.——*Q.* How would it operate on your dock, in the event of the colliers being moored on the south instead of the north side of the river?—*A.* I can only join in the opinion which I have heard from others; mine will be only hearsay evidence.——*Q.* About what time did you first hear of this matter?—*A.* The first information

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mation which I received of this question being before the Port Committee was on the 15th of July, as they met on the 17th, when a gentleman came into our office and asked me if I was aware of what the St. Katharine's Dock Company were about to do.——*Q.* Was this entirely by accident?—*A.* Entirely by accident.

Captain *Maughan* again Examined by the Committee.

1706. I believe the Wapping entrance to your dock is similarly situated to the one which you say will be blocked up in the event of the committee adopting the plan of Sir John Hall; there are no tiers to the eastward of the Wapping entrance?—The one is under the shelter of Wapping Ness which the tide sets off; at the other the main body of the flood is setting right on to us.——*Q.* Does not the flood break off the north shore before it comes to you?—*A.* It does, but the whole of the transit must pass our entrance; that is not the case in the other instance.——*Q.* There being 600 feet between the tier and the entrance to the dock, and your buoys that are laid down being 200 feet from the entrance, that makes 400 for the navigation; do you not think that 400 feet is a very fair and reasonable navigation for ships to go to the northward when the tide sets them towards the south shore?—*A.* It will be only 240 feet from the vessel to our buoys.——*Q.* Your calculation it appears proceeds from the assumption that there are three or four vessels lying at the buoy at the entrance of the dock; are they loaded vessels?—*A.* They are vessels that have come out of the dock to take in ballast, or that are waiting to go into the dock.——*Q.* Not drawing much water I apprehend?—*A.* No.——*Q.* I think you stated that you had only 14 feet at that buoy at low water?—*A.* Yes.——*Q.* Supposing a large ship to come up after high water, and you did not think it prudent to dock her, there being no place in the immediate neighbourhood for her to lie, would it be not more secure for her to drop down to Deptford, with a channel open on the north than on the south shore?—*A.* No; I think latterly we have not had more than three ships at our buoy at the ebb tide; if a vessel drawing 20 feet water was to come up to that point you could not turn her round to go down again. ——*Q.* If a vessel drawing 20 feet water was to come up to your buoy, the pilot would wish that she should lie afloat at low water: supposing such an occurrence to take place, would it not be for the safety and security of the ship that the vessel should be enabled to go back by steam in an open channel on the north shore, than that she should have to haul in on the south shore?—*A.* If they come up late with the tide, and the tide runs strong, they could not turn their vessel.——*Q.* They might drop down with the tide if this tier was not in the way?—*A.* They could get down outside.——*Q.* As to the tiers on the south shore opposite to the Wapping entrance, have you ever found or heard of any inconvenience resulting from them?—*A.* There are no tiers opposite to the Wapping entrance.

1707. Sir *John Hall.* Captain Fisher, are there not tiers all the way down on the south shore by Rotherhithe church?—Captain *Fisher.* Yes, certainly; but they are a parcel of little light corn-vessels.—Sir *John Hall.* I have seen vessels there of 400 tons burthen.—Captain *Fisher.* I am sure you must be mistaken in that, for there is not more than seven feet water there.—Sir *John Hall.* Why, not more than ten or twelve days ago, there was a ship of 390 tons lying there for sale.—Captain *Fisher.* If so, it is very extraordinary I never saw her.

1708. Sir *John Hall.* It is not my wish to make any observations at all offensive to the harbour-masters; I have not come here to attack them: all I have to do is to submit to the committee which is the best plan; not to attack or make imputations upon any one. I ask you, Captain Maughan, as a practical man, standing at the pier-head, at the Shadwell entrance every day, if you have not frequently seen such obstructions in the Pool as to endanger the safety of the property passing through it.

1709. Captain *Maughan.* It is no uncommon occurrence, with the wind at north-west, for persons to meet with accidents. I see a pilot in the room who met with an accident while coming out of our dock about eighteen months ago. Mr. Barton, I believe you were the pilot of the Barclay.

1710. Mr. *Barton.* I was. I came out of the London Dock with a ship drawing 15 feet water, with the wind to the north, and if the tiers had been lying where it is proposed to put these mooring-buoys there would have been plenty of room for the navigation, and my ship would not have gone on shore: but my ship was driven on shore owing to the narrowness of the channel.——Captain *Fisher.* Was there not a strong north wind?—Mr. *Barton.* A strong north wind.——Captain *Fisher.* Would you not call it a gale of wind?—Mr. *Barton.* No, I would not.

Captain *Maughan* further Examined by Sir *John Hall.*

1711. You stated that, since the Shadwell-dock tier had been removed, the water had considerably shallowed?—It has.——*Q.* Have you taken the trouble to look at the soundings on the harbour-masters' plan, and the other plans?—*A.* I have taken the trouble to do so.——*Q.* The soundings on the harbour-masters' plan, and those on my plan, represent there to be only 14 feet at the Shadwell-dock tier before the ships were removed; is that right or wrong?—*A.* It is wrong.

1712. Captain *Fisher.* These soundings were taken according to the Trinity standard, which makes a difference of three feet.

1713. Sir *John Hall.* I did not say anything to call forth Captain Fisher's remark; I asked Captain Maughan whether, in point of fact, the soundings on the harbour-masters' plan were correct or not; may I ask Captain Maughan if he has any account of the soundings?—These soundings were taken on the 25th July 1833, before our buoys were laid

laid down. When we first opened we had only two, but we found it necessary to petition for another, and then we took the soundings right up and down from buoy to buoy.—— *Q.* You did not take them across the stream?—*A.* No; we took them in a straight line. At 20 feet from the middle buoy there was 16½ feet, 18 inches below Trinity low-water standard; at 30, 16 feet; at 50, 14 feet 9 inches; at 60, 15 feet; at 80, 16 feet; at 100, 17 feet 6 inches; and at 126, 18 feet 3 inches.—— *Q.* If there has been any diminution of water since, it must have proceeded from an accumulation of mud?—*A.* It must.——*Q.* I have no hesitation in saying, that I think your plan ten thousand times preferable to that of the harbour-masters; but, in point of fact, this line which I am pointing to cannot be relied on at all times as a channel for navigation?—*A.* I see no reason why it should not. ——*Q.* If a ship comes up with a calm, does not the tide set her over here [*describing it*] to Duke's shore?—*A.* Unquestionably.——*Q.* If the wind be at south-west she must go about and bring her head to the southward, and get hold of the south shore?—*A.* Yes. ——*Q.* If the wind was northerly, and the vessel coming with the flood-tide, can she keep a straight line?—*A.* This is a little drawing [*exhibiting it*] which I made the day before yesterday, which perhaps may exemplify the subject.

1714. *Chairman.* Are there any other gentlemen, representing other parties interested in this question, who wish to be examined?

1715. Mr. *Cock* [or Captain *Maughan*]. I had expected that Mr. Soames would have been here, according to his promise. I understand it has been asserted that he signed the petition in favour of Sir John Hall's plan; he told me that he never did any such thing, therefore there must be some mistake about it.—Sir *John Hall.* All that I can say is, that I know Mr. Soames's hand-writing, and I should have no hesitation in swearing this signature to be his.

1716. *Chairman.* Have you anything further to state to the committee, Sir John Hall? —Sir *John Hall.* If it be the pleasure of the committee, I am ready to proceed with the very few observations I have to make, and I will endeavour to abridge them as much as possible.——*Chairman.* It seems to be the wish of the committee, that you should proceed with your address.

1717. Captain *Maughan.* May I be allowed to ask one question, before Sir John Hall proceeds. Supposing the plan of the harbour-masters is to be acted upon, what security is there that we shall have the 230 feet?—*Chairman.* I believe that no man will venture to give you any security for it. It must all depend upon circumstances. Sometimes it may be 400, sometimes 600 feet.——Mr. *Cousens.* You may have a very good security by employing such practical men as Greenwich watermen.—Captain *Maughan.* That will be no security to us, that this 230 or 250 feet shall be kept. Why not impose a fine on the harbourmasters if they do not do so.——Captain *Fisher.* How! May they not be prevented from doing so by bad weather, which is an act of God?

1718. Sir *John Hall.* Mr. Chairman and Gentlemen, I have now to offer a few observations, not only in reference to the plans which have been produced, but also in relation to the evidence offered for your consideration; and I shall endeavour to redeem the pledge which I gave, by not occupying your time longer than the importance of the case appears to me to require. The Committee may recollect, that when I first took leave to submit to them the second plan, (B), namely, that of the St. Katharine Dock Company, that is to say the improved plan (and that which I submit has never yet been shaken, as to the practical result of the present mode of stowing ships in the Pool), I stated to the committee at that time, that it did not necessarily follow that because they might differ as to the plan (A) practically, as it was understood as adopted by the harbour-masters, that it followed as a consequence that the committee were obliged to adopt this plan (B) as an alternative. I stated that my object in submitting it was twofold; first, from a conscientious conviction that the mode of placing the ships in the river on the south side was preferable to that which now exists on the north side, and that, as far as regarded the mode of placing these ships, it would be with the committee to determine whether, in point of fact, that plan was preferable to the other. I submitted to the committee that the first point was the one that I conceived to be the most important, nay paramount, namely the 300 feet; the next was, that which I considered to be subordinate but contingent, so as to satisfy the committee that, if they expected to be able to keep 250 feet, practically speaking, unless some new mode was adopted of placing the ships in the Pool, and not more than 18 in a tier, that it would be illusory, that they would deceive themselves; and I am prepared to show you that the effect of that deception awaits you, provided you are determined to adopt the harbour-masters' plan. The harbour-masters' plan is connected with the first branch of the subject, the 300 feet; and it is undoubtedly upon that which most of the question turns. I quite agree with what Captain Maughan said just now, that it is morally impossible for the harbour-masters to keep any number of feet that the port committee shall determine on, unless there is some new mode adopted for securing the ships in tiers; and further, that a less number of ships should only be permitted to moor in the tiers than are now proposed, or which it would be expedient to do, considering that the excessive number of ships has hitherto been one of the principal causes of obstruction offered to the trade of the port. You will see how important it is that the point I am anxious to establish should, at all events, be presented to you in a tangible shape, and especially as to what, in point of fact, are the number of feet practically that exist between the innermost ships and the north shore: for upon that depends the distance that will exist between the outermost ship and the south shore. This is connected with another practical question, and upon which there has been some misconception. It has been stated that I asserted that I would adduce evidence to show that 25 feet was the width of a collier in a tier: what I stated was this,

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that in order to provide for the various casualties,—such as a coal-lighter lying outside, which all these outside colliers have when they are discharging their cargoes,—for fenders, and for the range and sheer from wind and weather, you heard from the witnesses that from 40 to 50 feet would not be more than enough when the wind was to the northward. You will be pleased to recollect that which is notorious, that when the wind is to the northward is the very time the shoe pinches, for when the wind blows in that direction, fleets of colliers arrive; therefore at that very period, when you in fact want most room, you are in truth impeded and obstructed by the arrival of a large number of colliers, which operates in a double way, it sends the tier over from the north to the south shore, and therefore diminishes the width of the passage. I shall not trouble the committee with any observations on the subject of the disadvantage of navigating at angles [*pointing to the Plan*], going here and coming there, passing up here and repassing down there; that is a question that every practical man will understand at once; but that which I wished to draw the attention of the committee to principally is, what will be the effect, practically, of placing the number of ships according to the bye-laws which the Port Committee have submitted to the consideration of the Common Council, and these are the points to which I wish to direct the attention of the committee. You may recollect that I have always been an advocate for the introduction of something in black and white from the harbour-masters, and it was not until the last day of our meeting that I was able to obtain anything of the kind from those gentlemen. We have had before us various opinions as to the number of feet that it would be necessary to allow for a collier in a tier. First of all the harbour-masters started with 17 feet, then the next week they got up to 20, and the following week they crept on to 22; so that if you rely on such evidence as this, it must deceive you; and it is my duty to put you on your guard against the effect of that deception: I am sure it is not intentional, but such is the evil that will result from it. In the very plan which has been put in, after allowing 40 feet between the innermost ship and the north shore, there is only 230 feet left between the south shore and the opposite vessel, for the navigable channel of the river. I ask you how it is possible you can expect, with the difficulties that you have to contend with, that if you pass a bye-law which has for its object to secure a passage of 250 feet, or navigable channel, when your own officers put before you a plan which shows that they can never give more than 230 feet, how can we suppose that one half of that space will ever be kept? Hitherto it has been provided that there shall be 300 feet of navigable channel; and the whole of the evidence which I have heard seems to me irresistible in establishing this proposition, that taking the average width of the Pool, from time to time, it does not exceed from 150 to 200 feet; if that is so, how will you deceive yourselves if you expect to enforce, by a bye-law, that which the harbour-masters, by their plan, themselves tell you cannot be done, in consequence of the too great number of ships, and the mode of placing them in the river. The question then comes to this, how is it to be remedied? I will tell you: it is to be remedied, first, by placing a less number of ships in the tiers, not to exceed 18; and next, by making a greater provision than has hitherto been made for the shifting of the tiers, in cases of exigencies, and which will require you to make a greater allowance practically for width of space than 22 feet to each vessel. I take upon myself to say, that all I have heard on this subject has confirmed me in the opinion I previously entertained, that unless you allow 25 feet for each vessel, that is, for the space occupied, making allowance for her shifting, &c. you will never arrive at the result which you are so anxious to establish. I am satisfied that your desire is, as well as that of every other man connected with the port of London, that there should be a passage of sufficient width to accommodate the whole trade. I ask for nothing exclusive; I say that the St. Katharine Dock Company will feel content to participate in that which will be a benefit to all; and all that I ask for is a free channel for the navigation of the trade of the country.

With regard to the question of the 300 feet, it is important that the attention of the Committee should be drawn to the facts. It will be within their recollection, that it was not until the year 1829 that any provision was legally made for a certain width of passage being kept; and it was then for the first time established, that a width of not less than 300 feet should be preserved for the purposes of transit. I again beg to repeat that it is important that your attention should be directed to the few facts which I feel it to be my duty to present to you in this branch of the case. When, in the years 1797, 1798, and 1799, an examination took place before the Committees of both Houses of Parliament, it was then proposed and assented to by the Elder Brethren of the Trinity-house Corporation, that a passage of not less than 250 feet ought to be preserved for the trade of the Port, such as it was at that period, allowing for and contemplating the establishment of docks. Now I beg to inform you, that in the year 1799 and 1800, at the period when the West-India Docks were about to be formed or were forming, and provision was about to be made for the demands of the increased trade of the Port of London, the number of ships that entered London, both from foreign parts and coasters, including colliers, was 11,000, and at the present moment, taking twelve months up to the 1st of July, the number of ships that have entered the Port of London has increased from 11,000 to 25,365; then I ask you this plain question, is this a suitable period to diminish the width of navigation, which the bye-laws have determined should not be less than 300 feet? Is it desirable, when the trade has increased more than twofold since the year 1800, and is still increasing, that you should confine yourselves to a provision which the properly constituted authorities of the country told you, in 1799, was barely sufficient for the purposes of the then navigation? At all events the Port Committee will reconsider the subject, as it is the pivot on which the principal question turns. I may go further and say, with reference to the question of the 300 feet,

feet, that it has been discussed over and over again, and still, to this moment, I am ignorant on what grounds, (for evidence we have never yet to this moment been favoured with), the Port Committee have been induced to depart from what has been determined on by their predecessors. It has never been explained what the evidence was on which the Port Committee have been induced to reduce the 300 feet to 250. Rumour states that they were pressed to reduce it to 200, but whether it was to 200 or 250, it is quite evident that the alteration had become matter of full investigation, and from a digest of the evidence that it preponderated in favour of the 300 feet, influenced also by the knowledge of the great increase of the trade of the port. Was it at such a moment that the committee came to a decision to recommend that the width of 300 feet should be reduced to 250? In order to give effect to that recommendation I beg leave to observe again, that even so far as the harbour-masters' evidence goes, you cannot safely rely on the expectation of being able to secure 250 feet at the present moment, unless you alter the system and diminish the number of ships. It is with a view of endeavouring to induce you to alter that system, that I have presented myself to the notice of the Committee, and have taken the trouble to offer to you not a positive alternative, but the means of election. I must say that I feel rejoiced at having so done, as the circumstance of going so fully into the question has had the effect of producing a plan from another public body; and I am bound here to observe that, so far as the comparison of the two plans goes, that is to say, as between the London Dock plan and that of the harbour-masters', with the exception of one or two of the witnesses, they all agree that the harbour-masters' plan must be thrown overboard, and that the plan of the London Dock Company is far superior. I am ready to bow to the decision of the committee, and have not presented any sentiments to your notice but such as were the result of a thorough and conscientious conviction of being right, although there are those who have said, that the plan of the London Dock Company is far superior to the one which I had the honour of submitting to your inspection. But these are points for the committee to determine upon, and are not matters for the decision of the advocates on either one side or the other. As to the question of the width of space occupied by tiers, you will observe, that the effect, according to the state of the wind, is just the same on the tiers at Mill-hole, Church-stairs, and Hanover-hole. The wind blowing strong from the south-west shifts these tiers over into the main channel; and every practical man whom I have ever conversed with has never doubted that, whatever might have been the difference of opinion as to whether the tiers should be placed on the north or the south shore. The fact is, that, to use a seaman's phrase, these two tiers [*pointing to Mill-hole tier and Cole-stairs tier*], overlap each other; and the effect of the overlapping is necessarily to create an obstruction. I defy any man to drive me from this position; allow these tiers to overlap each other, and the navigation is obstructed.

1719. Captain *Fisher*. They do not overlap.—Sir *John Hall*. I ask you how you will secure the tiers lying there, as drawn in the plan, from overlapping?—Captain *Fisher*. It is an act of God that prevents it.

1720. Sir *John Hall*. I am now coming to the practical part of the question. It is not a theoretical subject, that may be delineated on a beautiful sheet of paper, with a fine drawing representing a number of ships. The ebb-tide sets right across this tier, Cole-stairs, which is like a turnpike-gate across the King's highway; and the same applies when the flood-tide sets into Ratcliff-cross tier. These tiers do create a dreadful obstruction to the navigation of the river, also from the manner in which they are moored.

1721. Captain *Fisher*. So it will always be whilst there are so many ships. There are too many.

1722. Sir *John Hall*. Captain Fisher may not view the matter as I do, but I imagine that Captain Fisher is not immaculate; for my own part I do not pretend to be so; I am quite prepared to be guided by circumstances and by facts. So far as regards the question of width for the occupation of a ship, the extraordinary difference of opinion that has existed among the practical officers of the service, upon this point, must be observed upon. When the evidence was given before the Committee in 1831, to which I refer from memory, page 116 of the former examination [1047], Captain Fisher never doubted for one moment that 25 feet ought to be the space allowed for the occupation of a collier; and if any doubt could exist on that subject, I put in his own letter, dated March 1833, showing that his opinion still was that 25 feet ought to be allowed.

1723. Captain *Fisher*. You wrote me a letter asking me what was the space allowed by the committee of the Trinity House for each ship, and I stated that 25 feet was allowed.

1724. Sir *John Hall*. In your evidence, Captain Fisher, page 116, to which I can refer you, and which is in the office for your perusal, you said that 25 feet ought to be the allowance for each ship. How are we poor landsmen to get at our results, when we are told that a certain number of feet ought to be allowed, and afterwards departed from? I adopted it in my plan, because I was authorized so to do upon Captain Fisher's evidence, and the other evidence that has been submitted, but when all is made plain to the Port Committee, up starts Captain Fisher on the opposite side, and immediately contradicts every assertion that I have made, leaving me at liberty to guess the motive which has induced him to do so. When he finds that 25 feet to each ship will not answer the purpose, as it will not give him more than 150 feet of passage, he turns round and says 25 feet is too much; therefore, what am I to do? The harbour-masters are not content with allowing it to remain as it is, but they have altered it, and made it considerably less than it was before, and this has been done by them to suit a particular purpose. But I have shown, notwithstanding what has been said to the contrary, that a collier, although she does not actually admeasure that space of room, still requires from 23 to 25 feet, including casualties, to lie at her moorings. I hope, before I have done, I shall have satisfied the committee in this respect, whatever

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difference of opinion may exist on the subject of the plans. With regard to the 300 feet, I take on myself to say that, with the exception of the doubt expressed by Captain Smith, a most respectable gentleman, all the practical witnesses say they have not any doubt that 300 feet ought to be kept: every pilot has told you so, and some have said they would rather have 400 than 300, the wider the channel is the better will it be for the navigation: therefore, I say that the evidence is conclusive as to the 300 feet. But we have been told by the harbour-masters that a difference of opinion exists on this part of the subject, and undoubtedly two documents have been put in by them, which go the length of attempting to throw some doubt as to whether it would be expedient to have 300 feet. On this point I am glad to find that the practical officers of the different establishments are agreed, and that it is not proper to put so many ships in a tier as it has been the practice hitherto. I beg to refer you to the evidence given before the House of Lords in 1796 on this subject, where it is stated that the number of ships in a tier should never be more than 12, unless in cases of exigency, when it would be necessary to increase it. The bye-laws increased it first to 15, and then to 18; but I am not aware of any particular provision that increases the number of ships to more than 20. I think that if moorings were laid down, and the ships were kept in their stations, that 18 ought to be the maximum, and that there never ought to be more than 18 ships in a tier. With respect to those persons who are practically acquainted with the River Thames, two documents have been put in. First, the harbour-masters put in a paper purporting to come from pilots and watermen who were in the constant practice of conducting vessels through the Pool, and who certified that it was not at all necessary to have a clear passage of 300 feet at low water for the purpose of navigating from Limehouse Reach to London Bridge. It purports to be signed by 128 persons, and one would expect to find such a document corresponding with its heading. If it does not, although I acquit the harbour-masters who put it in of any intention to mislead or to deceive the committee, the effect of it may have been to mislead them; because, if documents are put in which purport to come from pilots, and are to carry that weight with them which is attached to papers coming from men of experience and reputation, all that I ask is, let the document have the character which it deserves. I have, with some little industry, gone through this list, to which, by-the-by, I perceive there is no date, and from its appearance it must be some four or five years old, as it is perfectly in rags and hardly legible. Now I might have been in error, and I wrote to Captain Fisher, requesting him to have the goodness to point out to me any of these persons who were pilots, because, on comparing this paper with the Trinity House list, I could not find the name of one pilot. Captain Fisher sent me an answer, in which he stated that they were all practical men, but that he had not time to distinguish between licensed and unlicensed pilots. That was the answer that I received to a very humble application of mine to Captain Fisher, who we all know, from his situation, must be in possession of a list of the pilots. But what I say is, that you must throw this paper over-board so far as pilots are concerned, for there is not the name of a single pilot attached to it. Then there was another paper which the harbour-masters put in, dated in the month of April, but not put in until July, a lapse of four months, and this paper is signed by 171 persons, who are, no doubt, correctly represented to be captains of colliers and coasting traders. But I ask the committee whether they are prepared to allow themselves to be influenced by a document, which, after an industry of four months, when 25,000 ships enter the Port of London in the course of a year, and therefore, giving one-third for the period of time to ride over, from April to July, making no less than 8,000 or 9,000 ships, I say will the committee be influenced by a document which, in all this time, has been signed by only 171 persons! All I ask of you is, to discard such evidence, to pay no attention to it, for it is not worth your attention. If there had been a unanimous feeling on the part of the trade, how many signatures might not have been obtained by hawking about a paper during four months?

1725. Captain *Fisher*. They were all obtained in two days.

1726. Mr. *Cousens*. The paper did not lie for signature at the public-houses in the neighbourhood of St. Katharine's wharf.

1727. Sir *John Hall*. I did not say that it did, therefore your observation is gratuitous. All I said was, that it took four months to get a paper of that kind signed; but this reminds me of another fact. Where is the signature of a captain of any one vessel in the foreign trade coming to the Port of London, when, according to the last returns laid before Parliament on the 5th of July, there are no less than 5,000 foreign vessels entering the Port of London; are we to be told that this paper, signed by 171 individuals, is to influence the conduct of the Port Committee? So far as regards the advantage which the harbour-masters expect to derive from it, I have not the least objection to their taking all they can get by it. All I wish is, to put the committee on their guard, and not allow themselves to be led away by such documents. I will next proceed to the representations made by the London Dock Company, upon which, so far as the plan is concerned, I shall have very little to say. I do not pretend to say that the Port Committee are bound to adopt my plan; I never attempted to say anything of the kind; I left it to them to form their own judgment on it. The effect of the plan of the London Dock Company has been to show the committee that there are other modes of modification by which they may avoid the system that now constitutes an abominable obstruction to the trade. As to the comparison between the St. Katharine Dock Company's plan and that of the London Dock Company and the harbour-masters, I wish to say very little, because, as regards their merits or the facts, the committee will have to determine on them. There is one point touched on in the London Dock Company's memorial which has been presented that is so completely at variance with the circumstances, that I doubt very much whether all the pilots have had their attention turned to it. It is

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an allegation that, in the event of a hard frost, it would be impossible to get vessels over to the south shore to avoid the ice, which the removal of old London Bridge would cause to be of a dangerous character. The very moving of the ships from the north to the south shore would put them out of the reach of the ice; the current setting the ice on the north shore, ships will not lie there to meet with the obstruction that may be caused by it; they will lie in the most secure part of the river, and avoid any injury that may be occasioned to them by the drift ice. We all know that ships do not remain in the Pool in the tiers on the north shore at the time when the ice is drifting down strongly with the tide. With regard to the obstruction to the London Dock entrance, I have one observation to make, and I do make it in the most perfect sincerity; I declare to you, that so far as the St. Katharine Dock are concerned, if we felt that this would cause so serious an obstruction to the London Dock as so many respectable persons seem to be of opinion it will, I declare we should not feel satisfied in recommending it, although at the same time it will form a very considerable question for the consideration of the Port Committee. When improvements are suggested which are of a public character, but which cannot be carried into effect without serious injury to local or individual interests, the committee will balance the question, and see whether there is not more of imagination in the supposed injury to be done to the London Docks than exists in reality. We must, in matters where the public interest is more or less concerned, look to the benefit to arise to the public, and not to individuals. If the public interest requires that these tiers should be placed on the south side, as I have proposed, whatever may be the result to individual interests, I apprehend that the Port Committee will deal with it as affecting the public. Why should the London Dock Company complain, when it is evident that the 600 feet radius is preserved to them? and it has been proved beyond all doubt, that wherever the deep water is, and wherever the current runs strongest, there ought to be the channel for the navigation; I have never yet heard that disputed. It may be a question of an exception to the rule, in regard to its application to the London Dock entrance, but, notwithstanding what I have heard to-day from respectable witnesses, I still, with great submission, think that the injury to the London Dock entrance is entirely ideal. I do not believe that any real injury will be done to it. In the first place, you will recollect that the distance at which we propose to lay the ships from the Dock entrance at Shadwell will leave them quite ample space for the largest vessels coming in or going out of their dock. They will still have 400 feet left for navigation between their principal buoy and the outermost ship, and the tier proposed to be laid down at King-and-Queen stairs.

1728. Captain *Maughan.* Presuming that there are no vessels at our buoy, it would be so.

1729. Sir *John Hall.* I am arguing on the facts from your own plan, and everybody will understand it; the tide does not run parallel across the entrance of the Shadwell dock, but sets over from Cole-stairs towards Mill-hole tier, where there is this great obstruction [*pointing to Mill-hole tier*] that we so constantly hear of. They are constantly complaining of the Mill-hole tiers lying too far over and across the stream. I am quite prepared, if it be necessary, to substantiate what I assert, notwithstanding the high official character and contradiction of the senior harbour-master. I do repeat, that unless the moorings are laid down in the manner proposed in the Pool, and less ships moored in the tiers, mischief must arise. I do not differ with the London Dock Company on this part of the case; and the question is, whether you can secure to yourselves anything like a practical result and a clear navigation unless the vessels be so secured? As to the effect on the coal-trade, I believe that I had the honour of coming in contact with those gentlemen once before, and I am now again so unfortunate as to differ in opinion with them. I have taken up these points from a thorough conviction of the great public advantage that must accrue from the plan I propose being carried into effect, and if that is found not to surpass the amount of any injury it may do to others, let the question be so determined. I have not yet heard a word of real injury to be done by it to the coal trade. I propose to give them 24 more ships than the harbour-masters, and 44 more than the London Dock Company.

1730. Captain *Fisher.* You put the ships at Church-hole as a collier tier, which are generally iron or corn from the Baltic.

1731. Sir *John Hall.* I have laid down accommodation for ships at Church-hole, where I consider ships ought to have been placed long before, and which would have relieved other parts of the river. There is another place where tiers may be laid down with advantage, but whether it suits the harbour-masters so to do or not, is not for me to determine. A great number of colliers now come up to the Tower, and lie and discharge their coals there, a thing of modern practice, under the pretence of being Newcastle traders. One half of those ships come there without the sanction of the harbour-masters, and they obstruct the coasters who seek accommodation at that particular part of the river. I am convinced that the corporation of London will give what additional accommodation they can up above the Pools, as you will be pleased to recollect that by the alteration of London Bridge you have been adding to the property of the city by large and commodious wharfs, which bring up a greater number of steam boats and vessels than have hitherto required accommodation. For these reasons the colliers ought not to be allowed to lie in the vicinity of the Tower and those wharfs, to the exclusion of the coasters and such vessels. So far as the corporation of London are concerned, I think they will feel great pleasure in causing moorings to be laid down above the Eel-chain and opposite, on the south shore, for the accommodation of steam-boats frequenting their property, which cannot now find any in that part of the river, owing to its crowded state. As far as regards the coal-trade, I am at a loss to understand what injury they contemplate. They say their craft would be driven on Duke's Shore, but I beg

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to submit that there is no foundation for that opinion. The coal-craft will be benefited instead of the reverse, for they will get better accommodation on the south shore than they do now, and will have an opportunity of using the inside channel to approach the colliers, if they wish to do so. I have to apologize to the committee for a moment whilst I refer back to the question of the 300 feet passage. What was the Report of the Select Committee of the House of Commons on the 14th of October 1831, after the bye-laws had been passed for securing 300 feet? The Committee of the House say, that the regulations and directions for keeping the passage clear are not duly attended to by the harbour-masters, from which mischief and inconvenience result; and that it was necessary the city authorities should have their attention called to the matter, when they might apply such remedy as was required. But it did not stop here; such Reports we all know are distributed to the different Government departments. I suppose the Board of Trade found the Port Committee a little slack in stays, as seamen would call it. On the 8th December 1832 the Lords of the Council for Trade sent to the Port Committee an extract from the Report of the House of Commons, calling their attention to it, and requesting to know what steps should be taken for the purpose of giving effect to that recommendation. It is enough for me to say, that from that moment to the present not one single step has been taken to give effect to it. On the contrary, at the very period when the House of Commons laid before them the evidence which had been taken, the Port Committee determined on recommending that the 300 feet should be diminished to 250; as if that was a mode by which the obstructions and difficulties were to be removed. Having done with the coal-trade, I have only a few other general observations to make. One is rather surprised to hear the harbour-masters themselves stating that there are no obstructions; but I always like to go to head-quarters for information. I have been furnished with an extract of a representation made to the Government so late as June last, applying for additional accommodation for ships to lie off the Tower, upon the ground of the numerous complaints made by the merchants and ship-owners of the want of accommodation for vessels in the Pools. I prefer stating such a fact as that to 20 arguments. This document is in the hand-writing of the harbour-masters, and when they themselves admit the necessity of applying to Government for additional accommodation, we need not evidence to show that there is no obstruction in the Pools; and as to keeping 300 feet, it is out of the question; even 250 is more than can be kept, if you fill the tiers and crowd them with too many ships. The Chairman seems to think that this has nothing to do with the question before us, but I say that it has. You apply for additional room, for certain coasting vessels which cannot lie where they used to do. This shows the *animus* existing among yourselves in favour of the harbour-masters' statement that more accommodation is required, and you are aware of the complaints of the merchants and ship-owners. If it is not necessary to increase the accommodation, why demand it? How are you to get the ships up to the Tower, if you close the approach to it? You may increase the space for them to lie in there, but how are they to get there, for they cannot get through the Pool? To be sure they do get through the Pool, but how is it done? In a manner that I have heard called by some of the seamen "threading the needle." Pilots never approach the Pool without it at times unmanning them; they approach the Pool tremblingly. The property which they have the care of is not to be put in competition with the question of whether a couple of colliers, more or less, are to be added to or taken away from one of these tiers. If you adopt the plan of the London Dock Company, which is an hundred times to be preferred beyond the harbour-masters', mischief will still be done, and the evil will become so great as to correct itself. I do not know whether the Ship-owners' Society have altered their sentiments, but at the first meeting they presented a memorial, stating their wish to be heard on the subject; and since then they have sent a letter stating that the subject was under re-consideration. We have had no letter from them since then, and I therefore presume that they have not the same objection to the mode of mooring the ships as they had originally. Whether they have or not, it is open to them hereafter to present to you their ideas upon the subject; they are not to be shut out: I wish that every party should be heard, and if any persons should make such a representation to the committee, I have to request that I may be made acquainted with it; so that, if anything arises out of it, I may have an opportunity of observing on it. As far as regards the memorial put in by some of the gentlemen wharfingers on either side of the river, I must say that I complain of a paragraph in the same, and of many having signed both representations, more in sorrow than in anger. A man has a right to change his opinion if he likes. Thank God, we live in a country not only where we may freely express our opinions, but where we are at liberty to change them, if we think we can do so for the better. I would never exclude any man from changing his opinion; it is for him to satisfy himself whether it is made on good or on bad grounds; and so far as regards the petition presented to the Port Committee by Mr. White, I have heard nothing further from him; but I take the liberty of observing, that a great number of gentlemen who signed that petition also signed a paper of a very different description: they may have had reasons for so doing, which I take leave to repudiate, although I do not wish to impute improper motives. Why did these parties sign the first paper, and then attach their signatures to another, which is wound up with the following imputation, "We conceive that the proposed change is intended to drive the vessels into the docks?" That is the sort of clap-trap by which the signatures were obtained; but I appeal to any man, whether, by removing obstructions and leaving a navigable channel, you are likely to drive ships into docks. On the contrary, I should say the way to drive ships into docks is to create as many obstructions in the navigable channel as you can; therefore I think it is a paradox. All I mean to say is, that you must take the evidence subject to this qualification, that the parties have expressed

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pressed another and a very different opinion on this matter. I am not finding fault with any one. I am only observing on a fact, and the committee will deal with it as they choose. But, before I conclude what I have to address to the committee, I have only some very few words to say on what I deem to be a very vulgar error that prevails; it has arisen from old prejudices. Many persons labour under an impression, that ships lying in the river cause the bed of the river to deepen. I own that I was surprised at such a proposition. I referred to the soundings of the river from the year 1755 down to the time when they were taken by direction of the House of Lords in 1796, and twice since, once by the harbour-masters and once by the St. Katharine Dock Company, all the way down as far as Greenwich; and I find that there was more water in the Lower Pool, at those periods, than there is now, and in the very places where the ships are anchored. If you take a ship and lay her where there is mud on the bed of the river, no man will deny that it will scour the bed and leave a clean bottom; but it will not cause the bed of the river to be deepened. So far from the dropping of the anchors into the ground in the Pool, which tears up the ground, making deep water, it has the effect of lessening the water, and I will tell you why: when you drop your anchor and tear up the ground, you cause hillocks to arise between the tiers against which the floating silt substance rests, and an obstruction of silt is thus formed. Although it is true that, where the shipping lies, you preserve the same depth as the bed of the river, still it is erroneous to suppose that by laying ships there you cause deeper water. I say that it is no such thing, and has been proved to be the contrary. So it is as to the mud. Look at the state of the passage through the Pool, south side, with a view of seeing the erroneous impression that has been made, when it was said that by moving the ships to the south side of the river you would increase the shallowness. I ask any practical man, is there any accumulation of mud in the channel, preserved on the south side of the tiers, where they now lie? the bed of the river is there as clean as this book. If that part of the bed of the river, where the colliers now lie, was levelled, it would be of advantage. We have no mud outside the principal buoy of our docks. I know other places that I could name, that are similarly situated, where you could lay your ships; you keep the bed of the river scoured, although you would not deepen it. I was induced to say thus much from a very strong impression having been made as to thus deepening the river. I am convinced that in some parts of the Pool there are three or four feet less water than there was in 1796, and I am looking to the practical result of soundings that were taken many years ago. I quite agree with Captain Maughan, that there has been less water than there used to be. We have not more on the still of the gales at times than from 8 feet 6 inches to 9 feet, where we ought to have 10, and at particular tides less. One more observation, and I have done. I beg to call your attention to the circumstances under which the St. Katharine Dock Company have presented themselves to your consideration; because it must be borne in mind that they did not come before you entirely of their own accord, nor without being urged to do so, after the period when Mr. Alderman Wood addressed a few observations to you on the subject. He stated, that in January of the present year, a voluntary application was made by about 40 pilots on the river, requesting the St. Katharine Dock Company to take the matter up, and cause the obstructions existing in the Pool to be removed. We took no steps; we knew that the subject was under consideration, and we resisted the importunities of the parties. We told them the Port Committee had for the last two years been considering this subject, and we were in hopes they would carry into effect some very material improvements on the river. It was not until we were informed of the departure from the 300 feet that we presented ourselves to your notice. You have before you the memorial of a great number of pilots in our favour. You have a representation, signed by between 5,000 and 6,000 merchants, shipowners and others, of the port of London, in favour of the alteration, and recommending in the strongest way that the 300 feet should be preserved. You have applications from the Society of Merchants trading to the Continent, a highly respectable body, consisting of 77 firms: from the inhabitants of Gravesend, the London Dock and St. Katharine Dock Companies, the proprietors of steam-boats, and from wharfingers, who have pressed on your consideration the necessity of preserving 300 feet; and you have on your records the evidence of Captain Bullock, R.N., and a host of pilots, representing the sentiments of the Cinque Port and river pilots. This is not a question coming before you on the application of any individual, or of one dock company; it is a great public question; and I am sure that, under all circumstances, whatever may be your decision, it will be come to with a due regard to the general interests of the port, and the safety of its navigation. If in the course of any of the observations which I have made, from the commencement to the present period, I have had the misfortune to differ with some gentlemen, I hope I have done so in respectful terms, and that I have not given offence to any one. I beg to say that there is one conclusion you cannot fail to arrive at, that is, that the harbour-masters' plan cannot be carried into effect, and therefore it ought to be thrown overboard. Then you will have to decide as to certain modifications, and between the London and the St. Katharine Docks' plans. If you are of opinion that the plan proposed by the London Dock Company is one that ought to be adopted, I am sure that you will conscientiously recommend it: I can only say that I should like to see it tried, for I do think it would be a most important improvement to the trade and navigation of the port. Whether you think my plan preferable to that of the London Docks is for you to determine. I have now done my duty, which I have discharged from a conscientious conviction that the necessities of the trade of the port require that some great improvement should take place, and that an effective remedy should be applied. I have ventured to appear before you to express these sentiments without any assistance, from the conscientious feeling that I was doing that which

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was right, backed by the conclusive evidence which has been adduced, that this alteration is necessary for the trade and commerce of the port, and that the shipping interest demand at your hands that a radical remedy should be applied of an effective character.

1732. Mr. *Travers.* Mr. Chairman, I think that Sir John Hall has shown a similar want of courtesy to the body which I represent, that he did in respect to the plans. He has repeatedly observed upon the evidence given by the pilots, the captains of colliers, and other parties interested in this question, but he has carefully avoided every thing in relation to us. When there are not less than from 150 to 160 sail of loaded ships, averaging 400 tons, yearly entering our docks, I do consider that we ought not to have been so completely passed over. Our docks are by no means modern, they are coeval with the West-India Docks; and after having been attacked as we have been by the St. Katharine Dock Company, I think I should not be doing my duty if I did not make this remonstrance.

1733. Sir *John Hall.* In the multiplicity of what I have had to go through, I must say I have been placed in no very enviable position. I have had to contend against a great body of gentlemen, and have had no opportunity of taking down any portion of the evidence; the fact is, that so far as the Grand Surrey Canal is concerned, it is a question for the committee. I do not propose to disturb one single ship that they have there, but if they think it is injurious, let three ships be taken off that tier, and they will be relieved directly. There are 350 feet between the one tier and the other, and they have got a mooring-craft, which is a great advantage for ships to sheer on. I think if we take off three ships you will have the whole of your privileged ground. I made no attack on the company; on the contrary, I said that if any company was entitled to favour, I thought the Grand Surrey Canal was; I recollect Captain Smith said, he should not be captious as to one or two ships, but give all the accommodation that they could spare; and I am sure that I have said nothing to diminish the claim which they have to protection from this committee. I have only one other observation to make: there was a statement made in the memorial, in respect to which the town-clerk thought there had been some misconception on the part of the St. Katharine Dock Company, in stating that the Trinity Corporation could not legally be intermediately called upon for an opinion. It turns out that I was right in the view that I then took of it. The clause which he alluded to in the Act of 39 Geo. 3, has been repealed, and re-enacted under different circumstances.

1734. Captain *Fisher.* Sir John Hall has accused me of a want of courtesy, in not informing him as to the pilots; I can state a fact or two as to Sir John Hall: I wished to ascertain the number of ships that had gone into his dock for six months, a piece of information similar to that which I obtained immediately from the London Dock; and on application to the clerk at the pier-head of St. Katharine's, he said that he had orders from Sir John Hall not to give me a copy of any document, or to hold any communication with me whatever.

1735. Sir *John Hall.* Which I positively deny. The only knowledge I have of Captain Fisher's making any application for information at the dock-master's office was communicated to me by Captain Compton, who asked me whether he might give any information to Captain Fisher, and I told him, any information that Captain Fisher wishes to have, and will ask for, he shall have.

1736. Captain *Fisher.* Sir John Hall was pleased to state to the committee, that in 1829 there was a complaint made of the state of the river: now I have been informed by one of the members of the committee which sat to investigate this complaint, that it was owing to a report made by Sir John Hall himself. He also says the ship-owners complain of want of accommodation, and that we have applied to the Government to remedy it.

1737. Sir *John Hall.* I wished to show that the harbour-masters are themselves aware that the complaint came from the merchants and ship-owners as to the state of the Pool, and not, as has been too often and invidiously stated, from the St. Katharine Dock Company only.

1738. Captain *Fisher.* If you enlarge the passage from 250 to 300 feet, there will still be complaints made. There is another fact I wish to mention: I was told, by one of the pilots of the river, something respecting the way in which the petitions of the St. Katharine Dock Company have been got up: he said to me, Have you heard of the dirty work that is going on down at Gravesend? There is an agent of the St. Katharine Dock Company down there, hawking about a petition for signature. There is another thing Sir John Hall says: that in the year 1797 there was more water in the river than there is now: I can assign a reason for that; there were no docks built at that time; all the ships laid in the river, and helped to scour the bed of it.

1739. Mr. *Horne.* I believe that the coal-trade would be very well satisfied if they were at all times enabled to find room for 150 ships in the Pool.

1740. Sir *John Hall.* I wish to hand in to the committee a statement of the heads of those points which I have been directed to submit to the committee, and which may be of service to them in their deliberations.

The following statement was handed in:

1741. Memorandum of the recommendations submitted by the St. Katharine Dock Company to the Port of London Committee, 1835. First: The improved plan (B,) for mooring of colliers in the pools, to be adopted, omitting the tiers numbered in the original plan 1 and 2, near Cuckold's Point, by which the accommodation will extend to 194 colliers, being 24 more than the plan of the harbour-masters, and 44 more than that of the London Dock Company. Second: In-shore passage on the south shore to be deepened where necessary, so as to allow the innermost colliers drawing 13 feet to lie afloat at low water,

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at a distance of not less than 50 feet from low-water mark, the width of such in-shore passage never to be less than 50 feet, and no steam-boat to be allowed to navigate such passage. Third: Six mooring-craft to be stationed as delineated upon the plan (B,) and moorings to be laid down for the colliers in the tiers proposed, similar to those of modern use in other parts of the river, secured to large stones sunk under the level of the bed of the river, with mooring-buoys affixed, or any other improved moorings that may be found most effective, and offering the least obstruction or inconvenience. Fourth: Not more than 18 ships to be moored or lie at any one tier. Fifth: A clear passage of not less than 300 feet in width to be peremptorily kept, for transit (unavoidable casualties alone excepted), and penalties to be imposed on the harbour-masters for non-observance of that duty. Sixth: The exception in the proposed bye-law No. 43, in so far as regards the Trinity craft, to be expunged. Seventh: Bye-laws to be framed accordingly, and the various alterations and amendments suggested in the copy put in to be adopted. Eighth: To open an immediate communication with His Majesty's Government, with the view to some permanent arrangement for the removal of Limekiln-dock shoal, Whiting's shoal, and all other shoals that obstruct the navigation between Woolwich and London Bridge.

For the St. Katharine Dock Company, 3 August 1835. *J. Hall*, Secretary.

The following letters were put in by Sir John Hall:

1742. Sir John, Dover, July 23d, 1835.

Herewith you will receive our opinions with regard of the great advantage to shipping navigating the pools as proposed by the St. Katharine Dock Company, and others. It is with deep regret to us that you have to encounter any opposition in getting your valuable plan adopted by the authorities who have the control of these matters, especially the entrance to and in the Lower Pool, that "forlorn hope" of pilots and masters. That you may succeed in getting that great obstruction removed is the hearty wish of your Dover friends.

I remain, Sir John, your obedient servant,

Sir John Hall, St. Katharine Dock Company. *John Benjamin Post.*

1743. We, the undersigned licensed Cinque Ports Pilots residing at Dover, and licensed to pilot ships or vessels to the London Docks or moorings, do hereby certify that it is our decided opinion that, to afford safe and requisite accommodation to ships and vessels navigating the River Thames from Limehouse Reach to the Tower, a channel of not less than 300 feet should be reserved for that purpose between the tiers of shipping, or from the outermost in any tier to low-water mark, such channel to be preferably kept where the set of the tide is strongest; and we are further of opinion that, under proper regulations duly enforced, such channel can be kept with every regard to general accommodation of shipping frequenting the port of London.

Dover, July 23d, 1835.

J. B. Post. *Wm. Brett.*
Thomas K. Archer. *Richard Keys.*
Thomas Mackie. *W. J. Mowll.*
Richard Sackett. *William Strains.*

1744. Sir, 96, Snargate-street, Dover, July 21st, 1835.

In answer to your letter of the 13th ultimo, wherein you request my opinion on the enclosed memorials, setting forth the intended plan of the Pool. After perusing the several documents, I most fully concur in the opinion of the several river pilots, that additional power should be given to the harbour-masters, and a penalty attached to them if not in attendance during tide-time, for, should you make the Pool 500 feet wide instead of 300, the dumb craft would then be very much in the way, provided there is no one to see that they exert themselves when they see a heavy ship coming into the Pool, as when a heavy ship rounds Cuckold's Point and enters the Pool there is no other alternative but to keep the ship's head up, and the dumb craft, should there be any, will not exert themselves to get out of the way, knowing that should you do them any damage you must pay the same, which in my opinion might be prevented, by two harbour-masters stationed in the Lower Pool, one to see that when the dumb-craft entered the Pool they should use every exertion through the narrowest part of it, and the other stationed at Cuckold's Point, so that when a ship was coming up Limehouse Reach, he should immediately repair into the Pool and see that it is clear, and if not, to have full power to make it clear, and then, and in that case, it is my opinion that the St. Katharine Docks may be entered with as much safety as any docks in the river.

I have the honour to be, Sir, your most obedient servant,

Richard Mowll, 20 years a Licensed Pilot, 8 years a King's Pilot.

To Sir John Hall.

1745. Sir, Margate, July 21st, 1835.

I have perused the papers, and the plan of the river between Cuckold's Point and Churchhole stairs, and I have merely to state to you that it is my opinion, the sooner the plan is adopted the better it will be for pilots and captains navigating the river; for my part,

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I cannot see what objections there can be against such a plan, for the present state in which ships are moored in the Lower Pool has always been an eyesore to me, but I had no means of remedying the evil individually, and I do trust the improved plan (B) will be adopted, and those gentlemen that have taken the pains to adopt this plan, much credit is due to them, for if this plan (B) is adopted, it is quite evident that we shall have the advantage of the current; therefore I shall conclude and say, that I concur in the improved plan (B) submitted by the St. Katharine Dock Company.

I remain, Sir, your obedient servant,

To Sir John Hall. *Stephen N. Larkins*, Margate Pilot.

1746. Sir, Sheerness, 24th July 1835.

In reply to your letter of the 13th instant, I beg leave to say, that in my opinion nothing can be more clear to every nautical man who has any experience in the navigation of the River Thames than the improved plan of the St. Katharine Dock Company to moor ships in the Lower Pool; I have not a shadow of doubt on my mind that the advantages would be incalculable if adopted.

I remain Sir, your most respectful and obedient servant,

Sir John Hall. *Joshua Taylor*, Pilot.

1747. Sir, Grove-lane, Deptford, 23d July 1835.

In reply to your favour of the 13th instant, enclosing a copy of a plan for mooring colliers on the south side of the river, and requesting my opinion thereon, I beg leave to state, I have carefully looked over the plans, and am decidedly of opinion that marked (B.) is the best; also, that I fully concur in the opinions contained in the certificate signed by the river pilots.

I am, Sir, your very humble servant,

To Sir John Hall. *Richard Powell*, River Pilot.

1748. Sir, No. 6, Prince's-street, Rotherhithe, July 22d, 1835.

I have received your note, and plans (A.) and (B.), and most carefully looked over them, and I do consider plan (B.) would be a great improvement on the present mode of mooring colliers in the Pool; indeed, Sir, any alteration must be for the better, except they stop the navigation altogether, which I am confident will be the case before long, as far as the two upper docks are concerned, with ships of any considerable burthen and draft of water; and I likewise fully agree with those pilots and gentlemen that have signed the St. Katharine Dock Company's memorial, as to the necessity of the harbour-service being provided with additional power. Sir, had I not been busy yesterday and to-day, and having to take a ship down the river to-morrow, I should have been glad to attend on you with my individual opinion personally, and any further particulars which I may have found from experience; on my return I should be glad to communicate, and I am glad that such question of importance and improvement is taken up, and I have not the least doubt but that every assistance for that or any other improvement for the benefit of navigation will be rendered by the honourable Corporation of the Trinity House; however, Sir, I myself (and I believe I do not stand alone in that idea), think that no real remedy can take place for a crowded Pool without a collier dock.

I remain, Sir, your most obedient and humble servant,

To Sir John Hall, St. Katharine Docks. *Thomas Davies.*

1749. Sir, Risby's Rope-walk, Limehouse, 20th July 1835.

The documents I received enclosed in your letter pleased me much, wishing my opinion. Unless some alteration be made as to the state of the river in which you suggest a plan, I am convinced in a short time will materially tend to injure your docks.

I am, Sir, your obedient servant,

To Sir John Hall, St. Katharine Docks. *William Cole*, Pilot.

1750. These are to certify that I have very minutely examined the plan marked (B) of the River of Thames, and I do consider it to be the only and best plan that can be adopted for the good and safety of all parties concerned with the navigation of the River Thames, with the exception of the two lower tiers that are between Pageant's stairs and Cuckold's Point, as all ships going down with the wind from the southward and westward always must keep over to the point, otherwise the tide would throw them so far over towards Limehouse-hole tiers, as to cause some trouble and risk to get out in the fair tide. Given under my hand, this 23d day of July 1835.

Dan. Thomas, 10 years Master Mariner and 30 years Pilot.

1751. Sir, York-street West, Commercial-road, 29th July 1835.

Having received the copy of the memorial and the plan proposed by the Port Committee, with that suggested by the St. Katharine Dock Company, requesting my opinion thereon, Sir, I beg leave to state my humble opinion is, that the Company's suggestion, if carried into effect, would be of the greatest benefit to the shipping interest, and an ornament to the port of London. There is a small difference in the plan from my ideas, that is, two tiers below the Pageants, which I consider will not answer, so long as the Limekiln shoal remains.

I am, Sir, your obliged humble servant,

To Sir John Hall, St. Katharine Docks. *John Humphrey*, Pilot.

1752. Sir,

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1752. Sir, 31st July 1835. No. 1.

I have examined your improved plan (B) submitted for my opinion, with great attention, and from my knowledge of the Pool I fully concur with the alterations proposed, except the three lower tiers, which can be placed without any impediment to the river in the upper tiers. I also highly approve of the mooring-craft, which will prevent much damage to the shipping in coming up the Pool, and also in bringing the ships up in the Lower Pool, which will prevent the ships letting go anchors, and much damage to foreign shipping coming to all the docks and moorings.

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I remain, respectfully, Sir John, your obedient servant,
William Barton, River Pilot, Bridge-street, Southwark.

To Sir John Hall, &c.

[Adjourned.

Tuesday, 1 *September* 1835.

THAMES NAVIGATION AND PORT OF LONDON COMMITTEE.

WALTER ANDERSON PEACOCK, Esq. in the Chair.

1753. *Chairman.* Sir John Hall, we have received a Memorial from the St. Katharine Dock Company; we will have it read, and then we shall be happy to hear any observations you have to make upon it.

The memorial and the observations annexed thereto were read as follows:

1754. Sir, St. Katharine Docks, 31st August 1835.

The Board of Directors of the St. Katharine Dock Company, conceiving it possible, from certain differences of opinion that have transpired during the inquiry into the regulations for improving the port of London, as respects the policy of removing the tiers of colliers in the Lower Pool to the south side of the river, that the Navigation and Port of London Committee may, under existing circumstances, deem it expedient to defer, until some future opportunity, the final consideration of the extreme plan embracing the above proposition; and as the subject of the passage of the width of not less than 300 feet forms a distinct and most important branch of the question, and will not admit of delay without serious injury to the commerce of the port, the Board have caused to be prepared a statement, which is confined to that great and paramount object, which I am instructed to transmit for the information of the committee, together with a corrected copy of the bye-laws revised, so as to conform with this part of the subject; and I am to express the hope of the Board that an immediate decision will be come to upon a measure, in respect to which the opinions of parties whose interests are so immediately and deeply involved are almost unanimous.

I remain, Sir, your obedient servant,

H. Woodthorpe, Esq. *John Hall*, Secretary.

1755. Statement above referred to.

OBSERVATIONS on the subject of preserving the passage through the Pools in the River Thames of the width of not less than 300 feet, as now by law established, 1835.

The question relating to "a free and obstructed passage for shipping through the Pools of the width of not less than 300 feet," as now by law required to be kept, is one of vital importance to the commerce and navigation of the port of London. A recommendation to reduce such passage to 250 feet—[It is confidently reported, but considered incredible, that the harbour-masters did actually urge upon the Port Committee to contract the navigable channel to 200 feet!]—having been submitted to the court of Common Council, this and other matters connected with the harbour-service and improvement of the port have been referred to the Navigation and Port of London Committee for consideration. The following is a recapitulation of the substance of the facts, &c. touching this most important branch of the inquiry.

In 1796 Committees of both Houses of Parliament had under their consideration the necessity of providing additional accommodation for the trade and shipping of the port, at which period the number of ships that entered the same during the 12 months preceding was about 11,000, when it was established in evidence that a clear channel of not less than 250 feet should be preserved for the transit of shipping, and that no more than *twelve* ships should be permitted to lie in any tier.

In 1799 an Act passed "for rendering more commodious and for better regulating the Port of London," by which the court of Common Council were empowered to appoint committees to execute so much of the powers thereof as relates to the harbour-service; and the 97th section gives full authority to the harbour-masters, distinct from any bye-laws, to remove obstructions to the navigation.

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In 1806 a code of bye-laws was approved, by which amongst other regulations it was ordained, that no more than 15 ships should be permitted to lie in any tier; and the harbour-masters were enjoined to keep the navigation of the river free.

In 1824 and 1825 the crowded state of the river, the obstructions to navigation, particularly in the Pools, and the urgent necessity of providing additional and improved accommodation to the commerce of the port, again occupied the attention of both Houses of Parliament, when Acts were passed for constructing collier docks, the South London Docks and St. Katharine Docks; the two former, however, were never carried into effect.

In 1827 the Port Committee resumed the consideration of the regulations of the harbour, and having expressed a wish to Sir John Hall, that he would furnish them with information in detail upon several points connected with the navigation of the river, the manner in which the harbour-service was performed, and the remedies it might be expedient to apply, a communication was made accordingly, and the subject being one of great importance to the commercial and shipping interests of London, copies were circulated for the information of the public.

In 1828 the number of ships entering the port had increased to upwards of 23,000. The bye-laws were revised, and, amongst other salutary measures, a regulation was determined upon requiring that a passage through the Pools " of the width of not less than 300 feet should be kept;" but notwithstanding remonstrances at the time, the number of ships permitted to lie in some of the tiers in the Lower Pool was increased to 20, and experience has fully proved the evil of such increase, and has established that if the number of ships in any tier exceed 18, an encroachment must unavoidably occur.

In 1829 the amended bye-laws and regulations above referred to were legally confirmed and published accordingly.

In 1831 a Select Committee of the House of Commons, in their report " upon the frequent calamities produced by steam navigation," &c. observed, " that it appears that the regulations and directions for keeping a proper extent of passage-way on the Thames near London, for vessels and boats to pass up and down, are not duly attended to or enforced by the harbour-masters, from which mischief and inconvenience result. Your Committee are therefore of opinion, that it is necessary that the authorities in the city, who possess jurisdiction in these matters, should forthwith have their attention called to them, with a view to their applying such early remedies on these two points as they may be found to require."

In 1832 the Lords of the Committee of the Privy Council for Trade called upon the Port Committee to know whether they had taken any steps to carry the foregoing recommendation into effect. At this time representations were also made to the Port Committee by the London Dock Company, the St. Katharine Dock Company, and others, of the insufferable impediments to the navigation of the river, pointing out defects in the bye-laws, and offering cogent reasons for amending them.

In 1833 the Port Committee prosecuted a further inquiry; and on the 12th of April, whilst the revision of the bye-laws was under consideration, in consequence of continued complaints of obstructions, and of a want of proper attention to the duties of the harbour-service, a peremptory order was issued, of which the following is a copy:

" Ordered, That the harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way of not less than 300 feet are scrupulously enforced, and particularly in the Lower Pool, and that they do not allow at any time a greater number of ships or vessels being moored at the several tiers than is directed by the said bye-laws."

1833. In December, the revision of the bye-laws was completed, and approved of by the Port Committee, who determined, after a most laborious investigation, to adhere to the regulation established for keeping a clear passage of 300 feet.

1834. In January, a report, embodying the decision of the committee, was signed accordingly, but remained in abeyance, although repeated applications were made to the successive Port Committees to give effect to it.

1835. In March last, however, it was by mere accident discovered (no intimation having been given to the parties interested) that the committee had determined to recommend that the passage for transit of shipping, required by law to be kept of the width of not less than 300 feet, should be reduced to 250, and that the number of ships allowed to be moored in Cole-stairs tier should be increased to 22, and in Bell-wharf tier to 23, thus aggravating the difficulties of navigation through the Pool in a two-fold degree; and this objectionable measure proposed at a period, too, when the number of ships entering the port annually had increased to 25,365! the number in 1796, as previously stated, and when a passage in width of not less than 250 feet was deemed necessary, being only 11,000, and at a time also when it has been proved that the injury done to shipping, and frequency of accidents, many of which, attended with loss of life, have arisen chiefly from the crowded state of the already too contracted passage through the Pools, whilst it will be seen that the proposed alteration, if carried into effect, would diminish the width of passage practically to about 180 feet, as from the 250 feet must be subtracted the estimated occupation in width of the three additional ships. To this hour a studied silence has been preserved by the Port Committee of the grounds and of the evidence (if any) upon which they have been induced to disturb the decisions of former committees, and to recommend a repeal of the bye-law for keeping

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keeping the 300 feet passage, thus introducing an alteration which must prove highly detrimental to the navigation and general interests of the commerce of the port. The members of the committee are therefore especially invited to direct their serious attention to the plan which has at length been furnished by the harbour-masters, showing the tiers of colliers in the Lower Pool, arranged according to the proposed alteration, which presents sufficient evidence of the interruption it would produce to the navigation, as further illustrated by the following statement:

The width of passage opposite Bell-wharf tier, according to the plan of the harbour-masters, is - - - - - - - - - -	230 feet.
Deduct the width of a coal-craft loading outside (an encroachment on the passage not allowed for), equal to - - - - - - -	15 feet.
Remain - - -	215 feet.
Deduct the further encroachment, admitted by all parties, from the range and sheer of tiers, when the wind is north, and at which period colliers arrive in fleets, thus adding greatly at such times to the crowded and contracted passage - - - - - - - - -	50 feet.
Total width only of passage at such times in the Lower Pool for transit, exclusive of casualties - - - - - - - - - - -	165 feet.

But the effect may also be tested by another mode: there is not depth of water, except in one or two places, for the innermost ship, if drawing more than 12 feet, to lie afloat at low water within 100 feet of the north shore; the additional width therefore of 60 feet beyond the 40 feet allowed by the harbour-masters must be deducted from the 215, width of passage south side, leaving *practically* a passage only of 155 feet. It is further to be observed, that as the bye-laws provide for a width of passage of not less than a declared number of feet, the *minimum forms the rule*, and the first statement shows what would be the effect of the proposed alteration, without taking into account the difference in width of the north in-shore channel, and the average space occupied by a collier in tiers, as hereafter exemplified.

Evidence has been given by Mr. Jones, a civil engineer, Captain Compton, Mr. Owen, Mr. Clear, and others, after accurate surveys made at different times, that the width of the in-shore passage on the north side in the Lower Pool is usually 100 feet instead of 40 feet, as erroneously laid down in the harbour-masters' plan; the tiers therein delineated will therefore practically extend across the river to the south side 60 feet beyond the space allowed on such plan, leaving (after deducting 15 feet for a craft,) a width of passage only of 155 feet, and subject to an occasional encroachment to the extent of about 50 feet from the range and sheer of the tiers when the wind is northerly, although 230 feet is the width of passage described on the plan, and 250 feet the width determined upon by the alterations proposed. Next must be considered the difference in the statements of the computed width of occupation of colliers, including casualties, when moored in tiers.

In 1831, the senior harbour-master proved before the Port Committee, and confirmed the same in March 1833, that 25 feet in width was the space allowed for the average occupation of each collier, which includes fenders, casualties, range and sheer, and according to his further testimony (*see* Minutes of Evidence), such also is the opinion of the Elder Brethren of the Trinity Corporation. The accuracy of such computation has been further corroborated by the testimony of a host of most respectable witnesses; notwithstanding which, however, the number of feet of occupation allowed for each collier according to the harbour-masters' *present plan*, has been reduced from 25 feet to 22 feet per ship, thus *in figures* allowing for the width of a tier less than it really occupies 3 feet per ship, making a difference in Bell-wharf tier, for instance, of 69 feet; and as they form a component part of the 230 feet width of passage described on the plan, such passage would be reduced for practical purposes to about 150 feet. It is sufficiently obvious, therefore, why the harbour-masters have found it convenient to adopt, at the eleventh hour, the diminished computation. The discrepancies referred to clearly show that the adoption of the harbour-masters' plan would lead to inevitable confusion, increased obstruction, and certain disappointment; whilst it is highly important to notice, that, whatever differences of opinion exist as to any other plans for arranging the collier-tiers in a different manner, that of the harbour-masters is generally disapproved of. To secure an available passage of 300 feet in width, not more than 18 ships should be permitted to lie in any tier, and the colliers ought to be secured by fixed moorings. The tiers in Mill-hole and Hanover-hole ought not to contain more than 14 ships each, and should be moored within 50 feet of low-water mark, for which purpose the in-shore passage should be deepened: some of those tiers as at present regulated form a source of constant and well-grounded complaint, and, as Mr. Horne, an active member of the coal committee, has recently stated that he considers the coal-trade would be satisfied with accommodation for 150 ships, no pretence exists for crowding the tiers. The Legislature, with a view to improved and additional accommodation to the commerce of the port, having encouraged and sanctioned an expenditure of between six and seven millions in the construction of the London Docks, the St. Katharine Docks, and Grand Surrey Canal Docks, *whose entrances are all above the Lower Pool*, and where the chief obstructions to the navigation of the river exist, it follows that safe and convenient approaches to those public establishments must be secured; and it is to the legally constituted authorities, in

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the first instance, that the commercial and shipping interests look for immediate and effective redress against the impediments that exist, and the further encroachments in contemplation. The preservation of the passage of 300 feet has been urged upon the Port Committee by a great body of respectable witnesses, and by memorials from some of the most influential merchants, ship-owners, and others connected with the commerce of London, representing millions of property, signed within nine days by about 5,700 persons; also from the St. Katharine's Dock Company, the London Dock Company, the Society of Merchants trading to the Continent, inhabitants of Gravesend, steam-boat proprietors, and a very large proportion of the licensed pilots residing in London, Gravesend, Dover, Margate, Sheerness, &c.; from several of the London wharfingers, and from experienced navigators and others: whilst, on the other hand, the only adverse opinions on record are those of 128 watermen, usually employed in assisting ships through the Pools, whose interests are obviously opposed to a removal of the obstruction to the navigation; of 171 captains of colliers and coasters; and also of some of the wharfingers, who consider that a passage of 300 feet in width for general transit is unnecessary. It is at the same time worthy of notice that, notwithstanding a most industrious canvass by the harbour-masters, and although the number of vessels entering the port in one year exceeds 25,000, the signatures of only 171 captains of vessels, and of the 128 watermen above referred to, have been procured to the counter representations. Under these circumstances, it is confidently hoped that the Port Committee will give due weight and consideration to the predominating and well-grounded opinions before referred to, and at once determine,

1st. That the passage of 300 feet, as now by law established, shall be adhered to and peremptorily enforced.
2d. That no more than 18 ships be permitted to lie in any tier.
3d. That the colliers be secured by fixed moorings.
4th. That the in-shore passage be deepened and not permitted to exceed 50 feet from the innermost ship to low-water mark, and no steam-boat to be allowed to pass inside.

And finally, that the committee, from the importance and urgency of the case, will adopt immediate measures for giving effect to those regulations, which must be viewed as paramount. The mode of stationing the tiers of colliers in the river, according to the different plans submitted, is of a subordinate character, and may therefore be postponed for consideration at some future period.

London, 20th August 1835.

1756. Sir *John Hall.* I think I have occupied the time of the committee upon two occasions, sufficiently, without offering anything further now, nor am I desirous to say any thing more than this, that the board of directors, in consequence of the opinions entertained by persons whose opinions deserve to be considered (whether those opinions are imaginary or substantial they do not now inquire), are not desirous of pressing upon the attention of the committee the removal of the colliers from the north side to the other side of the river; but they confine their present application to that which I took the liberty of pressing upon the attention of the committee, as to the passage of 300 feet; I think this will disembarrass the proceedings of the committee; and I have only to repeat, that the directors have no desire to interfere with individual rights, nor have they a desire to interfere with local or particular interests.

1757. Mr. Alderman *Venables.* Are you of opinion that the shipping interest, generally, is in favour of the plan of keeping clear the space of 300 feet?—Sir *John Hall.* I have no hesitation in assuring you, that I have never met with any persons connected with the shipping interests that have opposed it. There are persons on the north side of the river having public-houses who oppose the plan of removal, but I never met with any practical man who opposed the 300 feet passage.

1758. Mr. *Bridge.* You went into a calculation of the increased number of shipping in the port of London; can you state the total number that go into the different docks?—Sir *John Hall.* Between 3,000 and 4,000 out of the 25,000, which you must deduct from the 25,600 that enter the port; for the accommodation given to the foreign trade that enters the docks is between 3,000 and 4,000.——Mr. *Hale.* You are alluding to the London and the St. Katharine Docks?—Sir *John Hall.* Yes; and the West-India Dock, and all the docks. The portion enumerated entering the port are foreign coasters, registered ships.

1759. Mr. Alderman *Venables.* In these observations appended to the memorial, you mention that Mr. Horne is of opinion that 150 ships are quite enough to accommodate the coal-trade; is that the opinion of the coal-trade generally; did he speak their sentiments?—Sir *John Hall.* He so stated it before the committee, and you will find it in the evidence near the conclusion of the last meeting [1739]. I originally suggested accommodation for about 200 sail, but from the evidence offered to you by him, it appears the coal-trade would be satisfied with considerably less; and the alteration I have proposed in the bye-law provides for 157, which, with the 9 offered by the London Dock Company in their limits, makes a total of 166.—Mr. Alderman *Venables.* I think they ought to have 150, and no more.

1760. Sir *John Hall.* And if the in-shore passage be deepened, undoubtedly you will be able to increase the number of colliers; because as you increase the depth in-shore, you increase the space for the shipping to lie in the tiers.

1761. *Chairman.* We understand each other perfectly. I do not know that we need detain you further. You were anxious to see the Committee, and it was my duty to acquaint

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acquaint you that we should be happy to hear anything further you had to state; and Tuesday being a busy day with you, we need not detain you.—Sir *John Hall.* In the event of any further petitions being presented, you will let me know.—*Chairman.* That is, concerning the south shore, which you have given up.—Sir *John Hall.* I need not occupy the attention of the committee any further.

1762. *A Member of the Committee.* You say the mode of stationing the collier-tiers is of subordinate importance; you admit that it is inferior to the 300 feet.

1763. Sir *John Hall.* Yes. When I opened the case, I stated that I produced a plan prepared in the alternative, but it did not bind the committee to adopt either: they might alter it in any way they liked, or modify the present regulations. But I now put the question to the committee, solely upon the 300 feet. That is the paramount question to occupy the attention of the committee; the question is simplified very much.

[Sir *John Hall* withdrew.

The following documents were then read:

1764. Sir, London Dock-house, 5th August 1835.

I have to request you will be pleased to lay the enclosed letter, from Mr. Grant, before the London Port Committee.

I have the honour to be, Sir, your most obedient humble servant,

S. Cock.

Henry Woodthorpe, esq.

1765. Sir, H. C. M. Steam-ship Isabel the Second, Gravesend, 2d August 1835.

I have just received a letter from you, requesting my attendance at Guildhall, with a view to my opinion being given relative to the plan proposed by the St. Katharine Dock Company for removing the colliers from the north to the south side of the river, and also to inspect the plan proposed by Captain Maughan. I have already seen both plans, and as regards the first, I am most decidedly against the plan of removing the tiers of colliers from the north to the south side of the river, for a variety of reasons, which I think must be apparent to all men who are properly acquainted with the navigation of the Lower Pool, but which I have not at this moment either time or opportunity to state, being on board of a man-of-war, and the means I have of writing at all borrowed. I will just simply state, that the south shore from the Surrey Canal to Cuckold's Point is very steep and hard, vessels therefore being forced on the ground would run great risk of being much injured. The Pool being generally narrow, it is evident the shorter the passage the sooner out of danger, therefore the south side of the Pool being the shortest, I think it is the most efficient. The angle the proposed lower tier by the St. Katharine Docks would make, with the tiers at Limehouse-hole, taking into consideration the dangerous shoal which lies above the tiers on the north shore, would be worse than the angle made by the overlap of the tiers at Mill-hole and Cole-stairs. The plan proposed by Captain Maughan I think is most rational, and I have no hesitation in saying, that all those who are practically acquainted with the management of vessels in the Pool will agree with him, that the south side of the Pool is by far the most efficient and safest.

I am, Sir, in haste, your obedient servant,

Andrew Grant.

1766. To the Navigation and Port Committee of the City of London.

The humble Memorial of the Churchwardens, Overseers and Trustees of the Hamlet of Ratcliff, in the county of Middlesex, showeth, That your memorialists have been informed that a plan has been proposed by the directors of the St. Katharine Dock Company for the removal of the ships and vessels employed in the coal-trade from the north to the south side of the Thames (in the Lower Pool); your memorialists therefore beg most respectfully to submit that, if this plan should be carried into effect, the inhabitants of this hamlet would suffer the greatest possible inconvenience and injury, not only as regards the loss of trade which would be diverted into other channels, but your memorialists beg to represent that, in consequence of the number of coal-wharfs, warehouses and other extensive premises, which border upon the north side of the Thames, an immense number of craft of every description are in constant requisition; your memorialists are therefore apprehensive that, if all the steam-ships are to navigate on this side of the Thames, it would not only occasion a suspension of business while they are passing both ways, but the damage and destruction of property and the loss of lives would be incalculable; in addition to which, your memorialists are of opinion that, if the shipping were even to be removed to the south side of the Thames, instead of extending, it would be more likely to narrow the passage, particularly on the ebb-tide. Your memorialists, therefore, humbly trust that the plan proposed may be rejected; and your memorialists will ever pray.

	Thomas Ritcliff.	*William Penney.*
	William Kempton.	*Thomas Holt.*
	John Goodwin.	*Henry Jarrett.*
	Thomas W. Dunch.	*Robert Johnson.*
	Edward Henderson.	*Robert Warton.*
Hamlet of Ratcliff, August 8th, 1835.	*J. W. Robinson.*	*John Hawes.*

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1767. Sir, Watermen's Hall, 8th August 1835.

Enclosed are the resolutions of the court of master, wardens and assistants of the Company of Watermen and Lightermen of the River Thames, held on the 6th instant, and I am instructed to request you to have the goodness to lay them before the Thames Navigation and Port of London Committee.

I have the honour to be, Sir, your most obedient servant,

To Henry Woodthorpe, Esq. &c. *John Banyon.*

1768. Watermen's Hall, 6th August 1835.

At a Special Court of Master, Wardens and Assistants of the Company of the Master, Wardens and Commonalty of Watermen and Lightermen of the River Thames, held this day, the plan for the mooring of colliers on the south side of the River Thames is submitted to the court; on examination, it is resolved unanimously, that this court is of opinion that should the colliers be removed to the south shore it will be prejudicial to the navigation of the river Thames, be the cause of loss of lives and property, and injurious to the watermen and lightermen working on the said river. Resolved, that a copy of the said resolution be sent to the Thames Navigation and Port of London Committee.

John Banyon, Clerk.

1769. To the Worshipful the Thames Navigation and Port of London Committee.

The memorial of the undersigned ship-owners interested in the coal-trade, and residing in South Shields, showeth, That from time immemorial, vessels, colliers, and West Indiamen, and vessels from the Baltic, were moored on the north side of the Thames, from Wapping Old-stairs down to Ratcliff-cross; that from the increase of trade in the port of London, it was several years ago found that this space in the river could not accommodate the vessels with safety, and thence arose the construction of docks at Blackwall and the Isle of Dogs, to contain the East and West Indiamen, and to prevent the necessity for their incurring the risk of coming so far up the river; and afterwards a dock and canal were constructed on the Surrey side of the river for the accommodation of vessels from other ports; all of which have answered the purpose of making more room in the Pool: the London Dock on the north side of the river was more recently constructed, which has accommodated a great many vessels, and is now the most commodious and the easiest of access of any dock above Blackwall; these various improvements have been made, and a reduction in the accommodation for colliers has resulted, not only from the space that is left open to facilitate the entrance to the docks, but also, in consequence of the river being unoccupied by vessels, the ground has grown up, and the space formerly containing the tiers called King Edward, King James, New Crane and Pelican, are now nearly dry at low water, and the place where Shadwell-dock tier laid is now left open for the Shadwell entrance to the London Dock, so that all the room now left for the accommodation of vessels supplying the metropolis with coals is contained on the south side, between the Thames Tunnel and the entrance to the Surrey Canal basin, and on the north side between the Shadwell entrance to the London Dock and Ratcliff-cross. Your memorialists have to notice that the dock called St. Katharine's has been constructed more recently, situated higher up the river than the London Dock, and they heard with surprise and alarm that an application has been made to the conservators of the river Thames for the removal of all the colliers below Shadwell-dock from the north to the south side of the river, in order to facilitate the passage of vessels up the river to the entrance of St. Katharine's Docks: your memorialists beg leave to state, that they consider the contemplated change would remove their property from a place of comparative safety to one of extreme danger, from the steepness of the bank on the greater part of the south shore, and want of water in the remainder, in that part in which it is intended that the colliers should be moored; and further, that in hard winters, when the Thames is frozen, and the risk and difficulty of securing the vessels and landing the cargoes is greatly increased, on the north side where they now lie, they can be hauled to the shelving shore and secured, whilst on the south shore such a precaution would be utterly impossible, as many vessels have been completely wrecked by stranding on the south shore of the river. Your memorialists humbly submit that they have a right to as safe accommodation as the river can afford to their vessels, without interfering with the rights of others, and it was a matter perfectly known to the projectors of the St. Katharine's Dock that the north side of the Pool was occupied by colliers before they commenced that undertaking; and therefore they cannot fairly object to their continuance in the position they previously occupied. And your memorialists are compelled in justice to observe, that, from the surveys they have caused to be taken of this part of the river, it appears to them that this measure which is attempted to be pressed upon the adoption of your committee, although it might facilitate the operations and increase the value of the property of the St. Katharine's Dock Company, would go far to render the Shadwell-dock entrance to the London Docks extremely hazardous, if not entirely useless. Your memorialists therefore humbly pray that your committee will not give your sanction to the contemplated removal of the ships of your memorialists from the situation where they now lie to one which they consider extremely dangerous, and against which they do most strongly protest. And your memorialists will ever pray.

Charles Magnay. *Robert Ness.*
Thomas Bell, junior. *William Wright.*
Edward Belt. *M. Aisbitt.*
And Eighty others.

1770.

1770. To the Navigation and Port Committee of the City of London. No. 1.

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The humble Memorial of the Inhabitants of the Parish of Saint Paul, Shadwell, in the County of Middlesex. Your Memorialists having understood that a plan proposed by the St. Katharine Dock Company for removing the colliers in the Lower Pool from the north to the south side of the river, is now under the consideration of your committee, beg respectfully but earnestly to state, that great loss will result to your Memorialists if such be carried into execution, inasmuch as the trade hitherto secured to them from the colliers would be diverted to another district, whereby your memorialists, many of whom have extensive premises, would have their trade nearly destroyed; in proof of which your memorialists beg further to state, that the removal of three tiers by the construction of the eastern entrance to the London Docks, in January 1832, has been a very serious injury to the trade of the parish. Your memorialists therefore humbly pray that your committee will prevent any such alteration being made as will tend so evidently to the prejudice of your memorialists. And your memorialists will ever pray.

Daniel Burn, Lower Shadwell.
Richard Lumley, ditto.
Robert Browne, ditto.
Mary Storey, ditto.
Samuel Sargeant, 58, Lower Shadwell.
Thomas Brown, ditto.
Thomas Arnold, ditto.
R. Flinn, Lower Shadwell.
Robert Floyd, ditto.
Joseph Gibson, ditto.
Alexander Mustart, ditto.
Edward Loder, 43, Bell Wharf.
Furlong & Son, Dean-street.

And Three hundred and sixty others.

1771. After discussion, the following Resolution, having been moved and seconded, was carried:

1772. Resolved, That taking into consideration the increase of the shipping and coasting trade resorting to the port of London, and the necessary accommodation which is required for the same, it is the opinion of this committee, that it will be impracticable to afford such accommodation and preserve so large a space as 300 feet clear water-way, at all times, for the transit of vessels through the Pool. And this committee therefore see no reason to alter their opinion in respect thereof, as stated in the proposed bye-laws reported to the Court of Common Council.

[Adjourned.

Appendix.

Shortly after the conclusion of the evidence in page 138, the committee directed the town-clerk to prepare a digest or abstract thereof for their consideration, but his constant attendance having been required before the Commissioners on Municipal Corporations, who were engaged for a considerable time in their investigation respecting the Corporation of London, the same was not laid before the committee till the 6th of December 1833, and on the 30th of that month the committee, having taken the proposed bye-laws into consideration, came to a resolution, that a space of not less than 300 feet, as far as practicable, should be maintained in the Lower Pool, and amended the bye-law accordingly.

The proposed bye-laws were subsequently further considered, and other additions, alterations and amendments having been made therein, they were ultimately agreed to by the committee on the 22d of January 1834, who instructed the solicitor to prepare a correct code of the same as amended, and signed a report to the Court of Common Council recommending the said bye-laws for adoption; and the solicitor, having prepared them in conformity with these directions, transmitted a copy to the Elder Brethren of the Trinity House for perusal, before being allowed by the Judges to give the Elder Brethren an opportunity of submitting their objections, if any, to them; and a communication having been subsequently received from them requesting a conference, the same took place on the 20th day of November 1834, at which conference several suggested alterations were agreed to, and the Elder Brethren stated that they would take the subject into further consideration, and communicate the result.

The committee, on being furnished with the opinion of the Elder Brethren, appointed a special committee to consider the same, who, having taken the suggestions of the Trinity House into consideration, and heard the harbour-masters, agreed to sundry further alterations, amongst which was one for 200 feet space being provided in the Pool instead of 300; and at a subsequent conference held with the Trinity House on the 20th of March 1835, it was suggested to allow a space of 250 instead of 200 feet in the Pool, which suggestion, together with sundry others, were adopted by the special committee on the 28th of March, and recommended to the grand committee for approval; and the grand committee, agreeing with the said recommendation, did, on the 2d of April 1835, sign a report to the Court of Common Council with the amended bye-laws, and directed that the former report should not be presented.

The same day a letter from the St. Katharine's Dock Company was laid before the committee, with a certificate from sundry pilots, relative to a free passage of 300 feet being preserved, upon which the committee resolved, that, as the bye-laws had been sanctioned and approved of by the committee and the Trinity House, they saw no reason to re-consider the subject.

No. 1.
Proceedings of the Common Council.

A further application was made by the St. Katharine's Dock Company on the 9th of April 1835, upon the same subject, when the committee came to a similar resolution as that last mentioned.

The report, with the bye-laws, was presented to the Court of Common Council on the 15th day of April 1835, and ordered to be printed previously to the same being taken into consideration.

And on the 2d day of July 1835, when the consideration of the report, with the draft of a new code of bye-laws, was on the paper of business, a memorial from the St. Katharine's Dock Company was presented to the Court of Common Council, and referred to the committee to examine and report, upon which the subsequent minutes of evidence were taken.

By the Acts 39 Geo. 3, c. 62, and 10 Geo. 4, c. 124, the lord mayor, aldermen, and commons in common council assembled are empowered to make bye-laws for the government of the harbour-masters of the port of London, which bye-laws by the first mentioned Act are required to be sent to the Trinity House for perusal before being allowed by the Judges, to give the Elder Brethren an opportunity of submitting their objections, if any, to such bye-laws, as before stated.

The appointment of the harbour-masters is in the lord mayor as conservator, but no person can be appointed by the lord mayor to execute the office of harbour-master unless he shall, after being duly examined by the master, wardens and assistants of the Trinity House, produce a certificate from them of his proper qualification to execute the office.

Appendix, No. 2.

No. 2.
Sir John Hall's Observations on the Report and Proceedings of the Port Committee.

OBSERVATIONS on the REPORT and PROCEEDINGS of the PORT COMMITTEE, relative to the Navigation of the Port of *London*, 30th March 1836.

THE Minutes of Evidence taken before the Port Committees upon the subject of the proposed alterations in the bye-laws, ordered to be printed on the 3d of November last, having at length been published, the members of the Court of Common Council have now the means of forming an opinion, whether any real grounds have been proved to exist to justify a diminution of the passage of 300 feet in width through the Pools, as required by law to be kept for the transit of shipping; and whether any substantial reasons have been shown for increasing the number of colliers in the already over-crowded tiers, according to the recommendation of the Port Committee, agreed to upon a division of seven to five only. The following is the substance of the evidence submitted to the committee in 1835, the proofs in favour of preserving a passage of 300 feet in width having by several preceding committees been deemed conclusive and acted upon accordingly.

In Favour of the Passage of 300 Feet as now by Law established.

Memorials and Representations from about 5,700 Merchants, Ship-owners, Bankers, Traders, &c.

From the London Dock Company.

St. Katharine Dock Company.

Grand Surrey Canal Dock Company.

Society of Merchants trading to the Continent, consisting of between 70 and 80 mercantile and shipping establishments.

Inhabitants of Gravesend.

Steam-boat proprietors.

Pilots residing in London, Gravesend, Dover, Margate, Sheerness, &c.

Dock-masters, and experienced navigators employed in transporting ships on the river.

Several of the most influential wharfingers of both sides of the river.

Testimony of Captain Bullock, R.N., who surveyed the river, and attended to give evidence before the committee by direction of the Admiralty. And of a host also of other experienced and respectable witnesses.

Against preserving the 300 Feet Passage, and for increasing the number of Colliers in the Tiers, and thus diminishing in a two-fold degree the width of the navigable Channel.

The harbour-masters.

N.B.—Although those gentlemen have affirmed (exclusively) that it is impracticable to preserve a passage of 300 feet, no proof whatever has been offered by them in support of the allegation, nor why, under proper regulations duly enforced, and with efficient moorings, such passage cannot be kept; nor have they attempted to show that under such regulations, snfficient accommodation cannot be found in the river for the shipping frequenting the port which do not frequent the docks; on the contrary, if proper moorings were laid down, the regulations duly enforced, and the harbour-service efficiently executed, no difficulty would be found in keeping the width of passage. The harbour-masters were present during the proceedings, and examined some of the witnesses, they also interposed observations, and offered their opinions to the committee.

Parties who think a Passage of 300 feet in width not absolutely necessary, but who are not opposed to it.

A few of the occupiers and owners of wharfs, some of whom however have neutralised their opinion by signing also the application in favour of the passage of 300 feet.

One hundred and twenty-eight Greenwich watermen, who assist ships through the Pools, whose interests are obviously opposed to the removal of obstructions.

One hundred and seventy-one captains of colliers and coasters (the number of vessels entering the port annually being now upwards of 25,000), but be it observed not one signature of a captain in the foreign trade.

N.B.—The two latter documents were procured by the harbour masters, one of which, from its title, purports to be signed by pilots, and, as such, is referred to in the report of the committee, notwithstanding it was distinctly shown that no pilot's name appeared thereto.

Shortly

No. 2.
Sir John Hall's Observations on the Report and Proceedings of the Port Committee.

Shortly after the determination of the Port Committee was known, a public meeting of owners of steam-vessels, ship-owners, wharfingers, proprietors of waterside property, and others connected with the navigation of the river, was held at the London Tavern, when it was resolved, that a strict preservation of a passage of not less than 300 feet in width was most essential, and a communication made to the Court of Common Council accordingly. A representation to the like effect from the principal wharfingers on the south side of the river was also made to the court.

The court have likewise caused to be published a copy of the plan of the Pools, showing the position of the collier-tiers, according to the alterations recommended by the Port Committee, a plan, be it observed, which has not been approved of by any one of the numerous witnesses, but, on the contrary, condemned by all of those who had their attention called to it. To enable the members of the court to draw their own conclusion of the comparative merits, a copy of the modified plan, as approved of by the London Dock Company, and lodged by the memorialists with the Port Committee, accompanies this statement, whilst it is worthy of notice that, notwithstanding the great importance of the subject, not the slightest mention has been made in the report of the committee of such modified plan, or of another plan submitted previously by the London Dock Company, providing also for a passage of 300 feet.

COMPARISON.

	Plan proposed by the Port Committee, which would, practically, diminish the width of passage, and render it at times available only to an extent of about 150 feet.	Improved arrangement according to the modified Plan submitted by the Memorialists to the Committee, and by which a Passage of 300 feet would at all times be preserved.	
North-side—Lower Pool.			
	Number of Colliers.	Number of Colliers.	
Shadwell-dock stairs, nine colliers to be moored, partly within the privileged limits of the London Dock entrance, with the assent of the London Dock Company	nil.	9	Being only six colliers less than the plan of the committee (see annexed statement), and securing an available passage of 300 feet for the transit of shipping.
Cole-stairs tier	22	18	
Bell-wharf tier	22	18	
Stone-stairs tier	20	16	
Ratcliff-cross upper tier	16	16	
Ditto - lower tier	15	14	
Total Lower Pool, with an available passage at times of about 120 feet only	95	91	
South-side—Upper Pool.			
Mill-hole lower tier	18	14	
Ditto upper tier	20	15	
Hanover-hole lower tier	20	15	
Ditto - upper tier	16	14	
Church-hole stairs tier, by the present bye-laws appropriated to colliers	nil.	14	
Total Colliers between the Regent's Canal entrance and Church-hole	169	163	

The following Statement shows, that accommodation for 163 Colliers in the Pools, as proposed, would be more than sufficient for the present demands of the Coal-trade.

Total number of vessels with coals that entered the port in 1835		7,958
Deduct number of vessels with less than whole cargoes, and which do not therefore discharge in the Pool		504
Total Number of Colliers		7,454
Of which discharged between Gravesend and Deptford	306	
Ditto - ditto - in the Regent's Canal	348	
Ditto - ditto - in tiers between Church-hole and the Tower, including the so called Newcastle traders	1,040	
Deduct		1,694
Remains to be accommodated in the Pools between the Regent's Canal entrance, and Church-hole		5,760

Allow seven days for unloading in the stream, computing the average quantity of coals at 300 tons to each collier, and a reasonable time for suffering, establishes the number to be 111 colliers working at one time. Allow further for 30 colliers to feed the market and supply the places of light ships about to depart, the number for which accommodation would be required, does not exceed 140. According to the evidence of Mr. Horne, chairman of the committee of the coal-trade, they will be satisfied with room for 150, see p. 210, No.

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No. 1739, whilst the modified plan provides for 163. The custom to limit the discharge in the Pools, at the option of the buyer, to 49 tons of coal from each ship per day, and the novel practice of selling cargoes in small and separate portions from day to day, constitutes much of the obstruction. If the regulation were extended to an increased quantity, the accommodation would, *pro tanto*, be proportionately augmented, as, upon emergencies, upwards of 200 tons of coals have been discharged in one day.

Please to compare the Plan of the Port Committee with a Copy of the Modified Plan of the Memorialists (herewith), when the following result will appear:

The Plan of the Port Committee is inaccurate and defective in the following particulars:—	Modified Plan of the Memorialists
The low-water mark is delineated according to a survey taken in 1806, the width of passage available for practical purposes ought however to have been computed from the present low-water mark, which, in some instances, extends nearly 100 feet beyond the line represented, and the available width of the navigable channel would, consequently, in certain places, be considerably less than described upon the plan.	Exhibits the low-water mark as it existed in 1806, and also such as it was upon the Government survey in 1830; the latter represents the present line, as near as may be, and according to which the available width of passage is to be computed.
Although 25 feet should have been allowed, only 22 feet have been computed as the room in width occupied by each collier, an ingenious expedient resorted to by the harbour-masters to conceal an egregious blunder, there not being sufficient room for the increased number of colliers proposed to be placed in the already over-crowded tiers, consistent with the projected width of passage of 250 feet; besides, no provision has been made for fenders, range, and sheer of tiers, which, according to the evidence adduced, including the three feet per ship, must be deducted from the width of passage described on the plan, and would reduce the channel, practically, to about 140 feet only, whilst 250 feet are contemplated. The Port Committee (*see* p. 112, of minutes of evidence) were early apprised of this unpardonable blunder, it is obvious, therefore, why they refused to afford information as to the estimated width of occupation of a collier. (*See* p. 142.)	Twenty-five feet have been allowed for the width of occupation of each collier when in tiers, proved, by numerous witnesses, and documentary evidence, most conclusively before the committee, to be the space practically occupied, confirmed by the evidence (*see* p. 112, No. 1047, and p. 151, No. 1156,) of the senior harbour-master, who stated also (*see* p. 205, No. 1723), that such was the opinion of the Elder Brethren of the Trinity Corporation. The modified plan provides for the passage of 300 feet.
The station assigned to Mill-hole lower tier would encroach upon the privilege of the Grand Surrey Canal entrance, an arrangement which cannot, therefore, be carried into effect.	Mill-hole tier has been stationed in its proper place, and so as not to interfere with the privilege of the Grand Surrey Canal Docks.
A radius of 300 feet has been allotted to the Regent's Canal entrance, whereas it possesses no such privilege.	The station of Ratcliff-cross lower tier has been duly provided for, at a suitable distance of 250 feet from the Regent's Canal entrance.
The entrances to the Grand Surrey Canal and Regent's Canal are represented as if they could not be approached within from 100 to 200 feet at low water, which is inaccurate.	Access can be had to the entrances of the Grand Surrey Canal, and Regent's Canal, at low water; the low-water mark is accurately described.
Ship's track is erroneously represented by *arrows*, a familiar symbol used in hydrography to denote the set of currents, in this instance substituted for the *broad lines* which appeared on the original plan, intended at that time to represent "a fair way passage;" but since expunged, in consequence of the delusive character of such a delineation having been publicly observed upon.	The set of the current is correctly designated by *arrows*, which show that the flood-tide from Shadwell-dock stairs sets diagonally across the river near the London Dock entrance, towards Mill-hole, and *vice versa* upon the ebb-tide; sufficient space has been allowed in stationing Mill-hole and Cole-stairs tiers, to secure a fair way and safe passage.
Mill-hole and Cole-stairs tiers, as proposed to be stationed, would, according to the particular set of the current which runs diagonally across the river near the London Dock Shadwell entrance, *overlap*, and thus render the navigation dangerous.	

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From the foregoing explanation it will be seen that the plan of the Port Committee, although prepared under authority, and with the joint assistance of the surveyor of the port of London and of the harbour-masters, is in many parts inaccurate, defective, and fallacious, which alone would afford sufficient grounds for rejecting the same; but, in addition thereto, the plan, as before stated, has been strongly disapproved of by all the witnesses who had their attention drawn to it.

It is astonishing that the Port Committee should have omitted to notice in their Report that the plan for mooring colliers on the south side of the river had been withdrawn, and a modified plan substituted. The Report descants, therefore, unnecessarily upon a plan which was no longer before them, the subject for their consideration having been narrowed to the question of the 300 feet passage, connected with the modified arrangement, as approved by the London Dock Company, and of some amendments in the bye-laws; nor have the committee adverted to a most important fact, that the representations and evidence were, with a slight exception, in favour of preserving the passage of 300 feet. A forlorn certificate, differing in that respect (*see* page 159), put in by the harbour-masters, and purporting to be signed by pilots and watermen, ought not to have been referred to in the Report, without at least noticing its deceptive character, the committee having been duly apprised that no pilot's name was affixed to the document; the paper is in any other respect wholly unworthy of observation.

The Report is wholly silent respecting the disregard of the harbour-masters to the bye-laws. Numerous instances of neglect of duty have been established in evidence, and of the obstructions they have sanctioned by allowing more ships in the tiers than permitted, and not keeping the passage clear; notwithstanding which, no representations of such conduct or proceedings have been made by the Port Committee to the Elder Brethren of the Trinity Corporation (*see* 79th section, 39 Geo. 3, c. 69), nor has the slighest redress been afforded.

The reason assigned by the Port Committee for recommending a diminution of the width of passage, and for increasing the number of colliers in the Pools, thus narrowing the approach to the seat of business, is most extraordinary. It involves the absurd proposition, that the means of access should be contracted in proportion to the increasing demand for accommodation. If such a curious reason should prevail, the commerce of London must suffer; the value of the wharfs above Limehouse be depreciated; the tenants of the corporation and occupiers of waterside property, lightermen, shopkeepers, fellowship-porters, carmen, and others carrying on business, in the vicinity of the Thames, be seriously injured, and the City revenues diminished, and amongst the probable effects of the railways to Blackwall, the coasting trade diverted from the seat of business, upon a pretext, which the unnecessarily crowded state and passage of the Pools affords, and dexterously referred to by the projectors of the Commercial Railway to Blackwall, who state it as the opinion of the harbour-masters, that the prohibition of steam navigation through the Pools, will be the best remedy for the evils complained of: a notable expedient, truly, by which the labours of those public functionaries would unquestionably be relieved, but at the ruinous expense of the best interests of the port.

It is to be observed that, without any new matter, or additional evidence between the 12th of April 1833 (when the regulation as to the passage of 300 feet in width was confirmed,) and the 17th day of July 1834, the Port Committee, after a lapse of 27 months, arrived at a conclusion not only unwarranted by the facts, but in direct opposition to the evidence, recorded opinions and reports of preceding committees.

A curious document, anonymous and irresponsible, the publication of which is unauthorized by the reference of the Court of Common Council, will be found in page 219 as an "Appendix," in which it is at length avowed, that the Port Committee had at one time even determined upon narrowing the passage in the Pools to 200 feet. The immediate object of that publication appears to be, to account in some measure for the extraordinary chasm in the proceedings of the committee, *see* page 131. The opinion of the Elder Brethren of the Trinity Corporation, therein referred to, is an assumption proceeding from a misconception, and in perfect keeping with the assertion of the senior harbour-master (*see* page 190, No. 1584), imputing the blame of placing too many colliers in the tiers to the Elder Brethren. Those constituted authorities were not, nor are they now, even in a condition to allow and approve of the proposed bye-laws, according to the provisions of the 13th and 14th sections of the 10th Geo. 4, c. 124, not having yet received the sanction of the lord mayor, aldermen and common council, whilst it may be further observed that important evidence given before the Port Committee has been omitted to be published, and particularly as relates to the examination of the chairs of the London Dock Company, and of their dock-master, also of the committee of the coal-trade, &c. &c. upon the modified plan, between the 1st of September and the date of the Report.

The Port Committee, in the proposed bye-laws, have recommended suspension, in lieu of penalties, upon neglect of duty by the harbour-masters, a mode of punishment which by law is vested in the lord mayor alone; such a substitution, therefore, is illegal, and would be inoperative. It is recommended that penalties, not exceeding 10*l.* should be provided for in each of the bye-laws embracing remedial regulations.

And with a view to give due effect to the prayer of the memorialists, the allegations set forth in the memorial to the court having been incontrovertibly established, the words "Two hundred and Fifty" should be expunged from bye-laws 24, 26 and 27, and "Three hundred" inserted, and the following proviso added to bye-law, No. 24:

"Provided

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"Provided always, that if any ship, vessel, steam-boat or craft shall be so moored, anchored or placed, as to diminish or encroach upon the said passage of 300 feet, the captain or any other person in charge of such ship, vessel, steam-boat or craft, shall forfeit or pay for each and every such offence any sum not exceeding 10*l.*; and in every case in which the harbour-masters on duty, or whose turn it is to be on duty, shall fail to keep or preserve such passage of the width of 300 feet, he or they, as the case may be, shall forfeit and pay in each and every such case a sum not exceeding 10*l.*, unless it shall appear to the satisfaction of the magistrate before whom complaint shall be heard that the width of passage shall have been diminished by unavoidable casualties."

It is also suggested to insert after the 25th bye-law the following regulation:

"And be it further ordained and established, that not more than 18 ships or vessels shall be permitted to be, remain, placed, or moored in any one tier; and in every case in which a greater number shall be so placed or moored in any tier, the captain or person in charge of such ship, vessel or steam-boat, exceeding the number of 18 as aforesaid, shall forfeit and pay a sum not exceeding 10*l.*; and if the harbour-master on duty, or whose turn it is to be on duty, shall not cause such ship, vessel or steam-boat, to be removed as required by the Act or Acts of Parliament for regulating the port of London, he shall forfeit and pay in every such case a sum not exceeding 10*l.*"

Bye-law 44 cannot be carried into effect, it not being practicable to ascertain the rate of speed of a steam-boat with sufficient accuracy so as to determine the application of a penalty. The nearest approximation to the object of the regulation would be, that a penalty be incurred whenever the valve of the steam-pipe shall not be throttled, so as that the hand of an indicator to be fixed upon deck shall point to the half-speed mark on the arc, to be previously regulated by an experiment both with and against the stream.

Under the circumstances stated, it is confidently expected that due weight and consideration will be given to the memorials and evidence referred to; and that the Court of Common Council, with a proper regard to the protection of existing interests, and encouragement of the trade and navigation of the metropolis, will refuse to sanction the plan of the Port Committee, and adopt the modified one of the memorialists, thus adhering to the regulation for keeping a passage of 300 feet, as now by law established; and that for such purpose, they will refer back the Report to the Port Committee to make the alterations and amendments referred to forthwith.

In conclusion, it is fit to state that a Select Committee of the House of Commons has been appointed to inquire into the state of the navigation of the port of London.

John Hall.

Appendix, No. 3.

No. 3.
Receipts and Balance of the Corporation of London.

AN ACCOUNT of the BALANCE due to the Consolidated Fund on the 25th July 1834, under the Act 39 Geo. 3, by the Corporation of London, the Amount of Tonnage Dues received since, and the Payments made to them to the 1st January 1836, showing the Surplus directed to be invested by the 6th section of the Act 4 & 5 Will. IV. c. 32.

			£.	s.	d.
Received since 25 July 1834			14,725	19	5½
Balance due to the Consolidated Fund on 25 July 1834	£. 7,008	11 11¾			
Issued to the Corporation of London, 13 November 1834	£. 2,500	– –			
Ditto, 16 April 1835	2,269	2 –			
	4,769	2 –			
			11,777	13	11¾
Surplus on 1 January 1836		£.	2,948	5	5¾

Exchequer, 25 February 1836.

Arthur Eden, Assistant Controller.

Appendix, No. 4.

No. 4.
Dues levied for Harbour Service.

RETURN of AMOUNT of DUES levied for the HARBOUR SERVICE upon Ships which entered the *Port of London* in the Years 1831 to 1835, stating the Sum paid per Ton; and also a Detailed Account of the EXPENDITURE during the same Period, especially the Expenses under the Head of "Harbour Service," which has been stated in Gross in the Return already put in.

PREVIOUS to the passing of the Act of the 4 & 5 Will. IV. c. 32, the whole of the Tonnage Dues levied were collected at the Customs and paid to the Exchequer; out of which the following Sums were advanced, under the order of the Lords of the Treasury, on application by the Corporation, for defraying the charges and expenses of the Harbour and Mooring-chain Services, for the years 1831 to 1834 inclusive; viz.

1831		£. 4,000
1832		6,000
1833		7,000
1834	in addition to 2,500 *l.*, part of the under-mentioned sum of 10,094 *l.* 2 *s.* 4 *d.*	2,500

The amount of the reduced Tonnage Dues levied for the year ending the 25th of July 1835, under the aforesaid Act of the 4 & 5 Will. IV., was 10,094 *l.* 2 *s.* 4 *d.*; of which sum 4,017 *l.* 18 *s.* 2 *d.* has been invested in Government securities, pursuant to the directions of the 6th section of the said Act.

RATES per Ton, payable under the Acts of the 39 Geo. 3, c. 69, and under the aforesaid Act of the 4 & 5 Will. IV. c. 32, "For reducing the said Rates."

	RATES OF TONNAGE.	
	39 Geo. 3, c. 69.	4 & 5 Will. IV. c. 32.
First Class.—For every ship or other vessel trading coastwise between the Port of London and any port or place in Great Britain, Ireland, the Orkneys, Shetland, or the Western Isles of Scotland; for every voyage both in and out of the said port.	One Halfpenny per Ton.	One Penny per Ton.
Second Class.—For every ship or other vessel entering inwards or clearing outwards in the said port, from or to Denmark, Norway or Lapland (on this side of the North Cape); or from Holstein, Hamburgh, Bremen, or any other port of Germany, on or near the Germanic Ocean; or from or to Holland or any other of the United Provinces, or Brabant, Antwerp, Flanders or any other part of the Netherlands; or from or to France (within Ushant), Guernsey, Jersey, Alderney, Sark, or the Isle of Man; for every voyage both in and out of the said port.	One Halfpenny per Ton.	Two Pence Halfpenny per Ton.
Third Class.—For every ship or other vessel entering inwards or clearing outwards in the said port, from or to Lapland (beyond the North Cape), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea; for every voyage both in and out of the said port.	One Halfpenny per Ton.	Four Pence per Ton.
Fourth Class.—For every ship or other vessel entering inwards or clearing outwards in the said port, from or to France (between Ushant and Spain), Portugal, Spain (without the Mediterranean), or any of the Azores, Madeira or Canary Islands, or any of the United States of America, or of the British Colonies or Provinces in North America or Florida; for every voyage both in and out of the said port.	Three Farthings per Ton.	Five Pence per Ton.

continued)

	RATES OF TONNAGE.	
	39 Geo. 3, c. 69.	4 & 5 Will. IV. c. 32.
Fifth Class.—For every ship or other vessel entering inwards or clearing outwards in the said port, from or to Greenland, Gibraltar, France or Spain (within the Mediterranean), or any country, island, port or place within or bordering on or near the Mediterranean, or Adriatic Sea; or from the West Indies, Louisiana, Mexico, South America, Africa, East Indies, China, or any other country, island, port or place within or bordering on or near the Pacific Ocean; or from any other country, island, port or place whatsoever to the southward of 25 degrees of north latitude; for every voyage both in and out of the said port.	Three Farthings per Ton.	Seven Pence per Ton.

DETAIL OF EXPENDITURE, HARBOUR SERVICE.	FOR THE YEARS ENDING THE 31st OF DECEMBER									
	1831.		1832.		1833.		1834.		1835.	
	£. s. d.		£. s. d.		£. s. d.		£. s. d.		£. s. d.	
Salaries and Allowances to Harbour-masters and other Officers employed in the Harbour Service:										
Capt. John Fisher, principal harbour-master -	500 – –		500 – –		500 – –		500 – –		500 – –	
Mr. William Cousins, second ditto - -	400 – –		400 – –		400 – –		400 – –		400 – –	
Mr. Charles Rowlands, third ditto - -	350 – –		350 – –		350 – –		350 – –		350 – –	
Lieut. William Mayott, fourth ditto - -	300 – –		300 – –		300 – –		300 – –		300 – –	
James Elmes, surveyor to the Port of London, and for plans, soundings, &c.	50 – –		50 – –		100 – –		200 – –		75 4 –	
Henry Woodthorpe, esq., town-clerk, as clerk to the committee, for stationery, &c.	250 – –		250 – –		250 – –		250 – –		250 – –	
Malcolm Durmett, clerk to the harbour-masters	120 – –		120 – –		165 – –		180 – –		180 – –	
The Clerks of the Chamberlain, for keeping accounts, &c.	84 – –		42 – –		42 – –		42 – –		42 – –	
The Hall-keeper and his assistants, for summoning and attending committee.	27 16 6		27 16 6		27 16 6		27 16 6		27 16 6	
	2,081 16 6		2,039 16 6		2,134 16 6		2,249 16 6		2,125 – 6	
Capt. Alexander Murray, late second harbour-master, retired allowance.	300 – –		250 – –		—		—		—	
Fees and Charges on the receipt of the monies from His Majesty's Exchequer.	103 7 6		156 15 –		181 15 –		65 17 6		—	
Law and Parliamentary Charges, including expense of obtaining 4 & 5 Will. IV.	3 5 1		- - -		20 – 11		- - -		396 16 2	
Expenses of the Harbour Service; viz.										
Wages to Harbour-masters' watermen - -	848 15 6		796 10 –		759 5 –		741 – –		888 10 –	
Taxes and Expenses of the Harbour-master's offices at St. Katharine's and Greenwich; pensions to superannuated watermen, widows of watermen; coals, candles, hire of barges, and sundry other disbursements.	655 10 6		649 3 –		540 1 5		705 15 11		835 13 5	
Expense of providing and repairing harbour-masters' boats.	197 13 9		179 11 4		81 3 7		110 3 3		—	
Expense of clothing for harbour-masters' watermen, and cloaks occasionally for the harbour-masters.	50 15 8		105 6 6		71 9 8		91 8 –		92 18 8	
Expense of alterations and repairs of harbour-masters' offices at St. Katharine's and Greenwich, stationery, printing, &c.	50 5 5		368 7 11		288 6 2		164 1 3		51 11 5	
£.	4,291 9 11		4,545 10 3		4,076 18 3		4,128 2 5		4,390 10 2	

Chamberlain's Office, Guildhall,
6 August 1836.

B. W. Scott.

Appendix, No. 5.

A Detailed Account of the Receipts and Disbursements relating to the Harbour Service, and the execution of the Bye-Laws and Regulations of the Port of *London*, for the Years 1829, 1830, 1831, 1832, 1833, 1834 and 1835.

	In the Years ending the 31st of December						
	1829.	1830.	1831.	1832.	1833.	1834.	1835.
RECEIPTS:	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d	£. s. d.
Received from His Majesty's Exchequer, advanced out of the general Tonnage Duties, pursuant to the orders of the Lords Commissioners of His Majesty's Treasury, and the Acts of the 39 Geo. 3, c. 69, and 4 & 5 Will. 4, c. 32.	3,000 – –	11,000 – –	4,000 – –	6,000 – –	7,000 – –	5,000 – –	2,269 2 –
To sale of old mooring-chains, &c.	– – –	98 6 10	– – –	– – –	– – –	28 12 3	—
Cash of the Corporation of the Trinity House, for a copy of the plans of the shoals, &c. in the River.	– – –	– – –	– – –	– – –	– – –	– – –	12 12 –
Total Receipts £.	3,000 – –	11,098 6 10	4,000 – –	6,000 – –	7,000 – –	5,028 12 3	2,281 14 –
DISBURSEMENTS:							
Fees and charges at the Exchequer on the receipt of the above-mentioned sums.	78 7 6	285 2 6	103 7 6	156 15 –	181 15 –	65 17 6	—
Salaries to the Harbour-masters and other Officers employed in the Harbour Service, &c.:							
To Captain Anthony Ludlam, late principal harbour-master	500 – –	—	—	—	—	—	—
Captain Alexander Murray, late second ditto	400 – –	—	—	—	—	—	—
Captain John Fisher, late third ditto	350 – –	—	—	—	—	—	—
Ditto – – ditto – as principal harbour-master	– – –	500 – –	500 – –	500 – –	500 – –	500 – –	500 – –
William Cousins, late fourth harbour-master	300 – –	—	—	—	—	—	—
Ditto – – – as second ditto	– – –	400 – –	400 – –	400 – –	400 – –	400 – –	400 – –
Charles Rowlands, late fifth harbour-master	250 – –	—	—	—	—	—	—
Ditto – – – – as third ditto	– – –	350 – –	350 – –	350 – –	350 – –	350 – –	350 – –
Lieutenant William Mayott, as fourth harbour-master	– – –	300 – –	300 – –	300 – –	300 – –	300 – –	300 – –
Matthew Marshall, superintendent of the mooring-chains	250 – –	250 – –	250 – –	250 – –	250 – –	250 – –	250 – –
Ditto – – – – an extra allowance	– – –	– – –	– – –	– – –	– – –	50 – –	50 – –
James Elmes, surveyor to the Port of London	33 6 8	50 – –	50 – –	50 – –	100 – –	50 – –	50 – –
Ditto – – for plans, surveys and soundings of the shoals, &c. in the River, and for copies of ditto.	– – –	– – –	– – –	– – –	– – –	150 – –	25 4 –
H. Woodthorpe, Esq, town-clerk, as clerk to the committee	250 – –	250 – –	250 – –	250 – –	250 – –	250 – –	250 – –

(continued)

DISBURSEMENTS—*continued.*

	In the Years ending the 31st of December						
	1829.	1830.	1831.	1832.	1833.	1834.	1835.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
To Malcolm Dunnett, jun., clerk to the harbour-masters	120 – –	120 – –	120 – –	120 – –	165 – –	180 – –	180 – –
The Clerks of the Chamberlain, for keeping accounts, &c.	63 – –	- - -	84 – –	42 – –	42 – –	42 – –	42 – –
The hall-keeper and his assistants, for attendance upon and summoning committee, &c.	27 16 6	27 16 6	27 16 6	27 16 6	27 16 6	27 16 6	27 16 6
Captain Ludlam, late principal harbour-master, retired allowance	- - -	187 10 –	—	—	—	—	—
Captain Alexander Murray, late second ditto	- - -	300 – –	300 – –	250 – –	—	—	—
The two last-mentioned Allowances were sanctioned by the Lords Commissioners of His Majesty's Treasury.							
Parliamentary and law expenses	1,662 8 –	- - -	3 5 1	- - -	20 – 11	- - -	396 16 2
Expense of providing and repairing mooring-chains, anchors, buoys, &c.	489 6 3	186 19 4	357 15 2	894 1 –	338 19 10	276 2 –	525 1 10
Wages and expenses in repairing, altering and relaying mooring-chains, &c.	600 – –	850 – –	800 – –	500 – –	778 7 –	650 – –	1,250 – –
Expense of building new mooring-chain lighter	- - -	- - -	- - -	- - -	- - -	- - -	570 – –
To Corporation of the Trinity House, for excavations, &c. in laying down moorings.	193 4 3	173 1 –	178 17 –	64 13 9	45 5 9	105 13 9	81 10 9
Landing, wharfage and warehousing of stores	- - -	20 19 4	159 12 6	60 19 3	14 13 –	13 4 –	10 15 –
Wages and expenses of the harbour service, consisting of wages to the harbour-masters' watermen, rent, rates, taxes, coals, and other expenses of the harbour-masters' offices at St. Katharine's and Greenwich, and sundry incidental charges.	1,563 14 4	1,294 17 2	1,504 6 –	1,445 13 –	1,299 6 5	1,446 15 11	1,724 3 5
Expense of providing and repairing boats for harbour and mooring-chain services.	105 1 2	- - -	212 17 1	191 7 4	91 12 2	124 6 2	—
Expense of clothing for harbour-masters' watermen, and for great-coats and cloaks occasionally for harbour-masters.	82 16 –	119 – –	50 15 8	114 – 6	71 9 8	95 17 –	110 9 6
Expenses and disbursements of committee charged with the execution of the Act.	450 – –	90 6 5	—	—	—	—	—
Expenses of alterations and repairs of harbour-masters' offices at St. Katharine's and Greenwich.	308 2 1	1 9 –	21 3 10	342 17 8	270 9 5	147 12 3	28 18 5
Expense of stationery and printing	138 13 8	32 4 5	31 8 9	29 18 9	30 13 6	23 15 9	32 – 3
TOTAL DISBURSEMENTS £.	8,215 16 5	5,789 5 8	6,055 5 1	6,340 2 9	5,527 9 2	5,499 – 10	7,154 15 10

Note.—In the year 1829 the sum of 2,277 *l.* 12 *s.* 3 *d.* was received from the Canal Fund, in part discharge of the debt due from that fund; and the sum of 2,259 *l.* 6 *s.* 6 *d.* was expended in that year for repairs of the Canal, and expenses of that establishment.

Guildhall, 27 Feb. 1836.

B. W. Scott,
Principal Clerk to the Chamberlain.

Appendix, No. 6.

No. 6.
Fines and Quit Rents of the Corporation of London.

AN ACCOUNT of the Receipt by the Corporation of *London*, between the Years 1801 and 1834, and further to 1835, inclusive, from FINES or QUIT RENTS, or any other Name, for permission to cut through the Banks of the *Thames*, or to erect Buildings or Works, driving Piles, &c., or Encroachments upon such River below *London Bridge*; setting forth the legal Authority under which the Grants were made or Permission given, and the particular Purposes to which those Sums of Money have been applied.

		£.	s.	d.
1801 - -	To Cash received as above - - - - - - - -	265	6	–
1802 - -	To ditto - - ditto - - - - - - - -	298	2	–
1803 - -	To ditto - - ditto - - - - - - - -	288	15	–
From Christmas 1804 to Lady-day 1805	To ditto - - ditto - - - - - - - -	449	3	6
1805–6 - -	To ditto - - ditto - - - - - - - -	428	19	–
1806–7 - -	To ditto - - ditto - - - - - - - -	408	4	6
1807–8 - -	To ditto, including 60*l.* by authority of the Grand Surrey Canal Act, 41 Geo. 3, c. 31 - - - - - -	497	19	–
1808–9 - -	To ditto - - ditto - - ditto - - - - -	620	–	–
1809–10 - -	To ditto - - ditto - - ditto - - - - -	759	2	6
1810–11 - -	To ditto - - ditto - - ditto - - - - -	838	1	–
1811–12 - -	To ditto - - ditto - - ditto - - - - -	604	9	6
1812–13 - -	To ditto - - ditto - - ditto - - - - -	731	19	–
1813–14 - -	To ditto, including 10*l.* by authority of the Woolwich Ferry Act, 57 Geo. 3, c. 199 - - - - - -	763	14	6
1814–15 - -	To ditto, including 5*l.* by authority of the last-mentioned Act	749	12	6
1815–16 - -	To ditto - - ditto - - ditto - - - - -	647	4	–
1816–17 - -	To ditto - - ditto - - ditto - - - - -	709	18	6
1817–18 - -	To ditto - - ditto - - ditto - - - - -	658	3	–
1818–19 - -	To ditto - - ditto - - ditto - - - - -	697	4	6
1819–20 - -	To ditto - - ditto - - ditto - - - - -	743	9	–
1820–21 - -	To ditto - - ditto - - ditto - - - - -	601	12	6
1821–22 - -	To ditto - - ditto - - ditto - - - - -	576	7	6
1822–23 - -	To ditto - - ditto - - ditto - - - - -	766	19	–
1823–24 - -	To ditto - - ditto - - ditto - - - - -	578	3	6
1824–25 - -	To ditto - - ditto - - ditto - - - - -	700	16	6
1825–26 - -	To ditto - - ditto - - ditto - - - - -	928	18	–
1826–27 - -	To ditto - - ditto - - ditto - - - - -	629	15	–
1827–28 - -	To ditto - - ditto - - ditto - - - - -	852	6	6
1828–29 - -	To ditto - - ditto - - ditto - - - - -	738	17	–
1829–30 - -	To ditto - - ditto - - ditto - - - - -	1,047	4	6
1830–31 - -	To ditto - - ditto - - ditto - - - - -	846	18	6
1831–32 - -	To ditto - - ditto - - ditto - - - - -	762	12	6
1832–33 - -	To ditto - - ditto - - ditto - - - - -	687	18	6
1833–34 - -	To ditto - - ditto - - ditto - - - - -	691	11	–
1834 to Lady-day 1835 -	To ditto - - ditto - - ditto - - - - -	787	18	6

The before-mentioned sums of money, to the year 1827, have been applied in aid of the fund created by the several Acts of Parliament of the 14th, 17th, 50th, 52d and 54th Geo. 3, for improving the Navigation of the River Thames within the jurisdiction of the City of London, westward of London Bridge.

From the year 1827 to 1833, in aid of the expenses of the Conservancy of the River Thames, per order of the Court of Common Council of the 20th day of September 1827.

And from the year 1833 to the present time, in aid of the funds created by the several Acts of Parliament of the 14th, 17th, 50th, 52d and 54th Geo. 3, for improving the Navigation of the River Thames within the jurisdiction of the City of London, westward of London Bridge, pursuant to the order of the Court of Common Council of the 12th December 1834.

In addition to the above-mentioned sums, the Corporation have contributed out of their own funds, in the years 1774, 1775 and 1776, 10,889*l.* 11*s.* 1*d.*, and the sum of 10,500*l.* subsequently advanced by loan of the Corporation, which was given up to the said fund, per order of the Court of Common Council of the 5th April 1821. The further sum of 15,000*l.* was also advanced in the year 1823, in aid of the said fund (free of interest), by orders of the said court of the 13th February and 17th July 1823, and which remains unpaid.

The legal authority under which the grants were made or permission given, is derived by the Corporation of London by prescription, custom and charters, sanctioned and confirmed by Acts of Parliament.

3 March 1836.

Stephen Leach,
Clerk of the City Works, and Principal Receiver of the Tolls on the Thames Navigation in the Jurisdiction of the City of London, Westward of London Bridge.

Appendix, No. 7.

A RETURN of the Number of MERCHANT and FISHING VESSELS, and of their Tonnage, that have entered the Port of *London*, in the Years 1800, 1810, 1820, 1830 and 1835; distinguishing those engaged in the Foreign Trade and the Colliers, and Fishing Vessels, from the Coasters.

YEARS.	FOREIGN TRADE.				IRISH TRADE.		COLLIERS.		COASTERS.		FISHING VESSELS.	
	British.		Foreign.									
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1800 - -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2,125	No record kept of the Tonnage of Vessels entering the Port with Fish.
1810 - -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3,033	
1820 - -	3,354	655,239	856	122,619	420	43,891	5,921	no record	10,676	no record	4,949	
1830 - -	3,910	744,229	1,268	207,500	797	105,409	6,944	1,413,243	11,316	918,049	4,851	
1835 - -	3,780	740,255	1,057	188,893	1,163	160,076	7,980	1,617,530	11,328	987,376	4,483	

The Accounts for these Years were destroyed in the fire at the Custom House in 1814.

Custom House, London, 12 March 1836.

John Covey, Registrar-general of Shipping.

Appendix, No. 8.

No. 8. Shipping and Steam Vessels entered the Port of London.

A RETURN of the Number of STEAM VESSELS, and their Tonnage, employed in the Trade with the Port of *London*, and their repeated Voyages, during the Years 1820, 1830 and 1835; distinguishing those employed in the Coasting Trade from those in the Foreign Trade.

YEARS.	COASTING TRADE.		FOREIGN TRADE.		TOTAL.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
1820 - -	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
1830 - -	185	48,100	176	25,534	361	73,634
1835 - -	699	181,740	377	84,944	1,076	266,684

Custom House, London, 12 March 1836.

John Covey, Registrar-general of Shipping.

Appendix, No. 9.

No. 9.

A RETURN of the Number of STEAM VESSELS, and of their Tonnage, employed in carrying Passengers only within the Limits of the Port of *London*, between the *Nore* and the *North Foreland*, *Ramsgate* included; specifying their repeated Voyages during the Years 1820, 1830 and 1835.

THERE are no Records at the Custom House which will afford the desired information, Vessels employed in carrying Passengers only within the Limits specified, not being required to report.

Appendix, No. 10.

No. 10. Shipping and Steam Vessels entered the Port of London.

AN ACCOUNT of the Number of SHIPS, VESSELS and STEAM-BOATS, and their Tonnage, which entered the *Commercial Docks*, during the Years 1820, 1830 and 1835; distinguishing those that entered with Goods from those that entered Light to load or to lay up.

YEARS.	Vessels that entered with Goods.		Vessels that entered Light, to load or to lay up.		TOTAL of Vessels in each Year.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
1820	180	48,207	90	21,424	270	69,631
1830	211	61,828	72	9,403	283	71,231
1835	141	44,473	31	5,147	172	49,620

Commercial Dock Office, 106, Fenchurch-street, 20 February 1836.

H. K. Smithers, jun. Chief Clerk.

Appendix, No. 11.

No. 11.

RETURN of the Number of SHIPS, VESSELS and STEAM-BOATS, and their Tonnage, that have entered the *East Country Dock* respectively, in the Port of *London*, during the Years 1820, 1830 and 1835; distinguishing those that entered with Goods from those that entered Light.

YEARS.	Number.	Tons.	Tons.
1820	42 with Goods - -	11,946	
	32 light - - -	7,979	
			19,925
1830	34 with Goods -	9,949	
	24 light - - -	7,417	
			17,366
1835	40 with Goods -	13,386	
	25 light - - -	9,330	
			22,716

East Country Dock Office, 18, Change Alley, 23 February 1836.

P. Malin, Secy.

Appendix, No. 12.

No. 12.

RETURN of the Number of SHIPS and VESSELS that have entered the *St. Katharine Docks*, during the Years 1830 and 1835.

YEARS.	Ships and Vessels that entered with Cargoes.		Ships and Vessels that entered Light, to load or to lay up.		TOTAL.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1830	500	98,013	393	43,758	893	141,771
1835	414	103,019	390	48,951	804	151,970

N. B. – The St. Katharine Docks were not opened until October 1828, and no Steam Vessels are admitted.

St. Katharine Docks, 19 February 1836.

J. Hall, Secy.

Appendix, No. 13.

AN ACCOUNT of the Number of SHIPS, VESSELS and STEAM-BOATS, and their Tonnage, that entered the *London Docks*, during the Years 1820, 1830 and 1835; distinguishing those that entered with Goods from those that entered Light to load or lay up.

YEARS.	SHIPS and VESSELS.				STEAM-BOATS.				TOTAL.			
	Entered with Goods.		Entered Light.		Entered with Goods.		Entered Light.		Entered with Goods.		Entered Light.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1820 -	853	141,399	402	63,989	-	- -	-	- -	853	141,399	402	63,989
1830 -	715	139,965	481	67,641	-	- -	1	102	715	139,965	482	67,743
1835 -	868	169,742	688	103,614	-	- -	3	152	868	169,742	691	103,766

London Dock House, 23 Feb. 1836. — *S. Cock*, Secretary.

No. 14. Shipping and Steam Vessels entered the Port of London.

Appendix, No. 14.

RETURN of the Number of SHIPS, and their Tonnage, that have entered the *Regent's Canal Dock*, during the Years 1820, 1830 and 1835.

		Tonnage.
Year 1820.—Between 1st August (the day on which the Regent's Canal and Dock were opened,) and 31st December:		
	16 light vessels - - - - - - -	3,451
	15 loaded ditto - - - - - - -	3,417
Year 1830 - - -	41 light vessels - - - - - - -	8,289
	592 loaded ditto - - - - - - -	108,035
Year 1835 - - -	51 light vessels - - - - - - -	7,920
	670 loaded ditto - - - - - - -	143,851

Regent's Canal Office, 99, Great Russell-street, 27 Feb. 1836. — *Edmund L. Snee*, Secretary.

Appendix, No. 15.

No. 15.

RETURN of SHIPS and VESSELS that have entered the *Grand Surrey Canal Docks*, in the Years 1820, 1830 and 1835; distinguishing those that entered with Goods from those that entered Light.

	Loaded Ships to discharge.		Ships and Vessels Light and to lay up.		Steam Vessels to lay up.		Total of each Year.	
	Ships.	Tonnage.	Ships.	Tonnage.	Vessels.	Tonnage.	Ships and Vessels.	Tonnage.
1820:								
Jan. 1 to Dec. 31 -	144	35,803	62	11,360	3	234	209	47,402
1830:								
Jan. 1 to Dec. 31 -	112	30,899	46	4,605	- None -		152	35,504
1835:								
Jan. 1 to Dec. 31 -	143	40,398	39	5,723	1	56	183	46,177

Grand Surrey Canal Dock Office, White Lion Court, Cornhill, 22 Feb. 1836, *Samuel Travers*, Secretary.

Grand Surrey Canal Dock Office, Rotherhithe, 22 February 1836, *David Smith*, Dock-master and Superintendent.

Appendix, No. 16.

No. 16.

RETURN of the Number of SHIPS, VESSELS and STEAM-BOATS, and their Tonnage, that have entered the Docks respectively in the Port of *London*, during the Years 1820, 1830, and 1835; distinguishing those that entered Light to load or to lay up.

YEARS.	Ships that entered with Goods.		*Ships that entered Light, or to load.		Steam-boats entered to lay up or fit out.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
1820	562	157,602	56	12,854	—	—
1830	619	169,073	303	36,365	8	1,533
1835	563	157,445	328	37,272	53	7,726

* Almost all vessels which enter light load outward cargoes, and there are no means of distinguishing those which might be regarded as having entered to lay up. No Steam-boats have either discharged cargoes, or loaded out in these Docks.

West India Dock House, 23 Feb. 1836. — *J. S. Longlands*, Secretary.

Appendix, No. 17.

No. 17. Shipping and Steam Vessels entered the Port of London.

RETURN from the *Star* Steam-packet Company, of the Steam-boats employed between *London* and *Gravesend*.

I AM desired by the Directors of this Company to forward the following Return relating to the Packets of this Company; viz.

	Registered Tonnage.
Medway	168 $\frac{70}{94}$
Comet	157 $\frac{89}{94}$
Mercury	202 $\frac{63}{94}$
Star	226 $\frac{53}{94}$
Planet	184 $\frac{21}{94}$

The above Packets are employed daily between London and Gravesend, for the conveyance of passengers, and occasionally to the North Foreland.

High Street, Gravesend, 5 March 1836. *J. Matthews*, Secretary.

Appendix, No. 18.

No. 18.

RETURN of the Number of LICENCES Granted by the Company of Watermen and Lightermen of the River *Thames*, for Wherries, Boats, &c., for the carrying of Passengers, in force on the 1st day of January 1836.

	Number of Passengers.		
	To carry Eight. (Section 4.)	To carry Six. (Section 5.)	To carry Four. (Section 6.)
Number of Licences granted for Wherries, Boats, &c. to carry Passengers above London Bridge	264	326	53
Number of Licences granted for Wherries, Boats, &c. to carry Passengers below London Bridge	1,318	671	96
	1,582	997	149
	997		
	149		
	2,728		

The Company has not refused to license any Wherry or Boat above the dimensions specified in the Bye-laws.

Waterman's Hall, 24 February 1836. *John Banyon*, Clerk.

Appendix, No. 19.

A RETURN of the Number of SHIPS, VESSELS and STEAM-BOATS, and their Tonnage, that have entered the East India Docks during the Years 1820, 1830 and 1835, distinguishing those that entered with Goods from those that entered light to load or lay up.

	Entered with Goods.		Entered light to Load.		Entered light to Lay up.		TOTAL.	
	Ships.	Registered Tons.	Ships.	Registered Tons.	Ships.	Registered Tons.	Ships.	Registered Tons.
1820.—East India Company's Ships.	40	39,026	6	8,463	- -	- - -	46	47,489
1830.—Ditto - - ditto -	32	34,724	8	3,962	8	6,773	48	45,459
1835.—Ditto - - ditto -	1	531	- -	- - -	- -	- - -	1	531
	73	74,281	14	12,425	8	6,773	95	93,479
1820.—Private Ships (licensed)	80	37,380	3	1,648	11	6,464	94	45,492
1830.—Ditto - - ditto -	35	19,601	5	1,699	10	5,887	50	27,187
1835.—Ditto - - ditto -	40	29,109	14	7,331	17	10,926	71	47,366
	155	86,090	22	10,678	38	23,277	215	120,045

It is right here to state, that the Act 43 Geo. 3, c. 126, made it imperative on all ships coming from India and China to discharge their cargoes in the East India Dock, until the termination of the Dock Company's Charter, which expired 3d October 1827.

East-India Dock-House, London, 9 March 1836. *Thomas Baker*, Secretary.

Appendix, No. 20.

No. 20.

Vessels and Steam Boats discharged and loading, and lying in Tiers.

A RETURN of the greatest Number of the description of SHIPS, VESSELS and STEAM-BOATS, usually discharging or loading in the Stream, that can be accommodated at one time in the several Tiers, and at the Moorings or otherwise, on both sides of the River *Thames* between London Bridge and the Regent's Canal entrance, and also between the latter and *Greenwich*, reserving a passage for the transit of Shipping of 300 feet in width; distinguishing the Number of Vessels that may be so accommodated at each of the Tiers, Moorings, &c., on each side of the River respectively; and a similar Return also of the Number of Vessels for which accommodation can be found alongside of Wharfs, and places used for loading and discharging on the Banks of the River, within the said limits.

The Number of TIERS and WHARFS on the North side of the River between London Bridge and the Regent's Canal Entrance.

	The usual Description of Vessels.	Vessels.
TIERS.		
1 Eel Chain	Foreign and Home	6
2 Steam-boat Tier	Foreign	4
3 Yarmouth Chain	Foreign and Home Trade	6
4 Dublin Chain	ditto	6
5 Steam-boat Tier	Foreign	3
6 Tower, Upper Tier	Newcastle and Sunderland Traders.	6
7 Tower, Middle Tier	ditto	5
8 Tower, Lower Tier	ditto	5
9 Iron Gate Tier	ditto	6
10 Steam-boat, Upper	Home	4
11 Steam-boat, Lower	ditto	4
12 Alderman's Upper Tier	ditto	6
13 Alderman's Middle Tier	Foreign and Home	7
14 Alderman's Lower Tier	ditto	7
15 Hermitage Upper Tier	ditto	7
16 Hermitage Middle Tier	ditto	7
17 Hermitage Lower Tier	ditto	7
18 Union Stairs, Upper Tier	ditto	7
19 Union Stairs, Lower Tier	ditto	6
20 Bell Wharf, Upper Tier	Colliers, South Shields	20
21 Bell Wharf, Lower Tier	ditto	20
22 Stone Stairs Tier	ditto	18
23 Ratcliff Cross, Upper Tier	ditto	16
24 Ratcliff Cross, Lower Tier	ditto	14
WHARFS.		
1 London Bridge Wharf	Home	2
2 Fresh Wharf	Foreign and Home	4
3 Cox's Quay	ditto	3
4 Botolph Wharf	Home	3
5 Nicholson's Wharf, exclusive of Floating Pier	ditto	1
6 Custom House Quay, 3 tiers of 2 vessels each	ditto	9
7 Galley Quay	Foreign and Home	3
8 Chester's Quay	ditto	3
9 Brewer's Quay	ditto	3
10 Iron Gate	Home	3
11 Iron Gate, Lower	ditto	3
12 Harrison's Wharf	Foreign and Home	5
13 Glasgow Wharf	Home	4
14 Leith and Berwick Wharf	ditto	4
15 Miller's Wharf	ditto	3
16 Carron Wharf	ditto	3
17 Downe's Wharf	ditto	3
18 Downe's Wharf, Lower	ditto	3
19 Hoare's Wharf	ditto	3
20 Brown's Quay	Foreign and Home	2
21 Granite Wharf	Home	3
22 St. Andrew's Wharf	Foreign and Home	2
23 Whiting's Wharf	Home	2

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No. 20.

Vessels and Steam Boats discharged and loading, and lying in Tiers.

TIERS and WHARFS on the South side of the River between London Bridge and the Regent's Canal Entrance.

	The usual Description of Vessels.	Vessels.
TIERS.		
1 Battle Bridge	Home	6
2 Pickle Herring	ditto	5
3 Pickle Herring, Middle	ditto	5
4 Pickle Herring, Lower	ditto	5
5 Merritt's (private) Swinging Tier	ditto	—
6 Limekiln Chain	Foreign and Home	7
7 Lighter Road; small coasters	ditto	7
8 Ditto ditto	ditto	7
9 Garland's Chain	Home	8
10 Old Rose	ditto	7
11 Horslydown, Upper	ditto	7
12 Horslydown, Middle	ditto	6
13 Horslydown, Lower	ditto	7
14 Mill Stairs	Foreign and Home	6
15 Bishop's Chain	Home	6
16 East Lane, Upper Tier; steam-vessels	ditto	2
17 East Lane, Lower Tier ditto	Foreign and Home	2
18 Fountain Hole Dock Tier, ditto	ditto	2
19 Cherry Garden, Upper Tier	ditto	6
20 Cherry Garden, Middle Tier	ditto	6
21 Cherry Garden, Lower Tier	ditto	6
22 Rotherhithe Upper Tier	ditto	7
23 Rotherhithe Lower Tier	ditto	7
24 King Stairs Tier	ditto	7
25 Prince's Stairs Tier	ditto	8
26 Trinity Stairs Tier	ditto	7
27 Church Hole Tier	ditto	8
28 Hanover Hole	Colliers, Sunderland	18
29 Mill Hole, Upper	ditto	18
30 Mill Hole, Lower	ditto	18
WHARFS.		
1 Fennings, 2 Tiers, 4 vessels each	Home Trade	8
2 Toppings, Upper	ditto	4
3 Toppings, Lower	ditto	4
4 Chamberlain's, Upper	ditto	4
5 Chamberlain's, Lower	ditto	4
6 Cotton's, Upper	ditto	4
7 Cotton's, Middle	ditto	4
8 Cotton's, Lower	ditto	4
9 Bridge Yard (late Army Depôt), 2 Tiers	ditto	8
10 Hay's, Upper	ditto	5
11 Hay's, Lower	ditto	5
12 Beal's, Upper	ditto	5
13 Beal's, Lower	ditto	5
14 Vauxhall, or Smith's	ditto	5
15 Griffith's, Upper	ditto	5
16 Griffith's, Lower	ditto	5
17 Gun and Shot Wharf	ditto	4
18 Symon's Wharf	ditto	4
19 Stanton's, Upper	ditto	4
20 Stanton's, Lower	ditto	2
21 Pickle Herring, Upper	ditto	2
22 Pickle Herring, Lower	ditto	2
23 Mark Brown's, 2 Tiers	ditto	4
24 Davis's, 3 Tiers	Home and Foreign Trade	6
25 Hartley Wharf, 2 Tiers	ditto	4
26 Liddard Wharf	ditto	2
27 Rattenbury's Ways	ditto	3
28 Crisp's Ways	ditto	3
29 East Lane	ditto	2
30 Grove's Dock	ditto	2
31 Beatson's Wharf	ditto	2
32 Evans' Ways	ditto	1
33 King and Queen	ditto	2
34 Globe Stairs	ditto	1
35 Thompson Dock	ditto	1
36 Thompson Dock, below Pageants	ditto	2

No. 20. Vessels and Steam Boats discharged and loading, and lying in Tiers.

Number of TIERS on North side of the River between the Regent's Canal entrance and Greenwich.

	The usual description of Vessels.	Vessels.
1 Limehouse Hole Tier - - - - -	Foreign - - - -	7
2 Upper Canal Tier - - - - -	- ditto - - - -	8
3 Tier below the Canal - - - - -	- ditto - - - -	9
4 Second Tier below the Canal - - -	- ditto - - - -	10

From the Commercial Dock down to the Middle Water Gate, His Majesty's Dock-yard, Deptford, occupied by Government, which the Harbour-masters regret, not having power to lay ships.

From Middle Water Gate to Deptford Creek four tiers, eight ships in each tier, permitted by the Government.

From Deptford Creek to the Bight below the town of Greenwich is used by Colliers detained for want of sufficient room in the Collier Pool for their accommodation, and other vessels stopping tide.

In making this Return, the Harbour-masters presume the weather to be calm and the water still.

Harbour-masters' Office, 29 Feb. 1836.

John Fisher,
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters, Port of London.

Appendix, No. 21.

No. 21. Ships or Vessels lying in the Tiers.

A RETURN of the Total Number of SHIPS or VESSELS that were lying in the several Tiers, or at the Moorings, &c., and at the Wharfs and Places before mentioned respectively, within the said limits, on the 1st, 10th and 20th days of every month, during the Years 1834 and 1835; distinguishing the Coal-laden, the Light Ships, and those navigated by Steam;—Also, a Return of the Number of Vessels Coal-laden, either in the whole or in part, which have discharged in the Stream above *Church Hole,* in the Years 1833, 1834 and 1835.

THE Harbour-masters beg leave to state that they are not in possession of the information required; they have never been directed by any Act of Parliament, bye-law or regulation to keep such an account.

A daily register of such general and minute remarks would materially interfere with their more important duties on the River, and from the numerous arrivals, departures and removals constantly taking place in the Pools, it would be impossible to take such an account with any degree of accuracy.

Harbour-masters' Office, 29 Feb. 1836.

John Fisher,
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters, Port of London.

Appendix, No. 22.

No. 22. Steam Boats carrying Passengers.

A RETURN of the Number of STEAM VESSELS, and of their Tonnage, employed in carrying Passengers only, within the limits of the Port of *London,* between the *Nore* and the *North Foreland, Ramsgate* included, specifying their repeated Voyages during the Years 1820, 1830 and 1835.

THE Harbour-masters are not in possession of the Return; but in order that the same might be forwarded to the Committee, they directed a letter, with a copy of the Order, to be transmitted to the various parties concerned, viz.

Old Margate Steam-packet Company - - - -	No. 1 Return.
Gravesend - - ditto - - - - - -	No. 2 ditto.
Diamond - - ditto - - - - - -	No. 3 ditto.
Commercial - - ditto - - - - - -	No. 4 ditto.
Woolwich - - ditto - - - - - -	No. 5 ditto.
General - - - ditto - - - - - -	No. 6 ditto.
New Margate - ditto - - - - - -	No. 7 ditto.
Star, Gravesend ditto - - - - - -	No. 8 ditto.
Herne Bay - - ditto - - - - - -	No. 9 ditto.
Greenwich - - ditto - - - - - -	No. 10 ditto.

Harbour-masters' Office, St. Katharine's, 2 March 1836.

John Fisher,
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters, Port of London.

No. 22.
Steam Boats carrying Passengers.

(1.)—RETURN from the *Old Margate* Steam-packet Company.

YEARS.	Names of Vessels.	Tonnage.	No. of Voyages.	STATIONS.
1820	Sons of Commerce	70	20	Gravesend.
1820	Eclipse	159	52	Margate.
1820	Favorite	409	40	Margate.
1830	Eclipse	142	16	Margate.
			183	Gravesend.
1830	Venus	231	23	Gravesend.
			14	Sheerness.
			26	Margate.
1830	Albion	222	100	Gravesend.
			14	Sheerness.
1830	Dart	201	38	Margate.
			2	Gravesend.
			2	Sheerness.
1830	Magnet	237	69	Margate.
			2	Sheerness.
1830	Hero	214	5	Margate.
			44	Gravesend.
			2	Sheerness.
1835	Eclipse	142	5	Gravesend.
			11	Ramsgate.
			11	Greenwich.
1835	Venus	231	50	Gravesend.
			24	Sheerness.
			1	Woolwich.
1835	Albion	222	98	Gravesend.
			1	Greenwich.
			3	Ramsgate.
			1	Margate.
			15	Sheerness.
1835	Dart	201	61	Ramsgate.
			5	Sheerness.
1835	Magnet	237	78	Margate.
			1	Sheerness.
			1	Gravesend.
1835	Hero	214	4	Gravesend.
			1	Greenwich.
1835	Fame	217	8	Herne Bay.
			3	Sheerness.
			2	Gravesend.
			1	Greenwich.
			14	Ramsgate.
			38	Margate.

P. S. A passage down and up is considered one voyage.

55, Fenchurch-street, 25 Feb. 1836. *J. Miller*, Secretary.

(2.)—RETURN from the *Gravesend* Steam-packet Company's Office.

YEARS.	Names of Vessels.	Tonnage.	No. of Voyages.	Names of Places.
1820	Diana	52	115	Gravesend.
1830	London	60	45	--Gravesend, Southend and Sheerness.
1830	Swiftsure	88	41	- ditto.
1830	Hawk	96	85	- ditto.
1830	William Fourth	97	44	- ditto.
1835	- Ditto	97	90	- ditto.
1835	Rose	73	104	- ditto.
1835	Hawk	96	28	- ditto.
1835	Ditto	96	96	Greenwich.
1835	Swiftsure	88	194	- ditto.
1835	- Ditto	88	67	--Gravesend, Southend and Sheerness.
1835	Fly	53	116	--Greenwich, Woolwich and Gravesend.
1835	--King of the Netherlands.	140	39	--Greenwich and Woolwich.

55, Fenchurch-street, 25 Feb. 1836. *Frederick Knight*, Secr.

No. 22.
Steam Boats carrying Passengers.

(3.)—RETURN from the *Diamond* Steam-packet Company's Office.

Name of Steam Vessel.	1830. Number of Voyages.	1835. Number of Voyages.	Tonnage.
Kent	384	413	135 45/94
Pearl	500	3	94 6/94
Essex	496	413	132 28/94
Brilliant		435	180 37/94
Emerald		210	219 92/94
Diamond		472	159 56/94
New Pearl		334	135

High-street, Gravesend, 24 February 1836.

John Nightingale.

(4.)—RETURN from the *Commercial* Steam-packet Company.

No Vessels in 1820.
No Vessels in 1830.

1835.

NAMES.	Registered Tonnage.	Voyages.	
Duke of Sussex	156 56/94	1	Between the Nore and Ramsgate.
Princess Victoria	164 5/94	42	ditto.
Emerald	220	46	ditto.
Princess Victoria		41	Port of London, and including Southend and Sheerness.
Duke of Sussex		120	ditto.
Emerald			ditto.

47, Lothbury, 25 February 1836.

J. Bleaden, Secretary.

(5.)—RETURN from the *Woolwich* Steam-packet Company.

The Woolwich Steam-packet Company was not formed until 1834, and in 1835 three vessels belonging to the Company were afloat for the conveyance of passengers, viz. the Sylph, 70 25/94 tons; Fairy, 77 13/94 tons; and the Naiad, 76 57/94 tons. In the months of January, February, March, April, October, November and December, the number of voyages performed by the vessels averaged *two* daily, and in the summer months *five* daily.

Woolwich, 27 February 1836.

William Nokes, Secretary.

(6.)—RETURN from the General Steam Navigation Company.

For the year 1820 - - - Nil.

For the year 1830:

The City of London	186 tons.
The Harlequin	250 —
The Attwood	144 —
The Columbine	200 —
The Brockelbank	125 —

In all 145 voyages to and from Margate and Ramsgate.

For the year 1835:

The City of London	186 tons.
The Royal Sovereign	196 —
The Queen of the Netherlands	116 —

In all 135 voyages to and from Margate and Ramsgate.

69, Lombard-street, London, 3 March 1836.

541

No. 22. Steam Boats carrying Passengers.

(7.)—RETURN from the *Margate* and *London* New Steam-packet Company.

1820	- - - - - - -	None.		
1830	Royal George	212 tons	- -	72 trips to Margate and back.
—	Essex - -	117 —	- -	2 ditto - ditto.
1835	Royal Adelaide	178 —	- -	50 ditto - ditto.
—	Royal William	233 —	- -	68 ditto - ditto.

62, Lower Thames-street,
7 March 1836.

Lewis Gibson, Secretary.

(8.)—RETURN from the New Steam-packet Company.

This Company is not in condition to return the whole of the information required, but as far as regards the vessels of this Company, the Directors are ready to make a return upon being so required by the Government.

High-street, Gravesend,
27 February 1836.

J. Matthews, Secretary.

(9.)—RETURN from the *Herne Bay* Steam Company.

Red Rover	- - - number of passages	- - 85
—	- - - old tonnage	- - - 252 $\frac{10}{94}$
—	- - - new tonnage	- - - 148
City of Canterbury	- - number of passages	- - 94
—	- - old tonnage	- - - 252 $\frac{42}{94}$
—	- - new tonnage not ascertained.	

19, St. Helen's-place,
3 March 1836.

William Linnington.

(10.)—RETURN from the *Greenwich* Steam-packet Company.

Name of the Steam-packets.	Registered Tonnage.	Plying between.	Number of Voyages.	Period.	Observations.
The Greenwich	95	- - Greenwich and London.	about 1,100	- - from 19th April to 31st Dec. 1835.	- - ran daily, with few exceptions.
The Royal Tar	83	- ditto -	about 740 -	- - from 31st May to 22d Nov. 1835.	ditto.

Greenwich, 2 March 1836.

Chas Josh Carttar,
Solicitor to the Company.

Appendix, No. 23.

No. 23. Wood-laden Ships.

A RETURN of Wood-laden Ships which entered the Port of *London* from 1st January to the 24th June 1836, and how many went into Dock.

	Foreign.	British.	Went into Dock. F.	Went into Dock. B.	TOTAL.
From Sweden and Norway - - - -	98	3	1	1	101
- Prussia - - - - - - -	57	16	40	11	73
- Russia - - - - - - -	1	3	- -	1	4
- British Colonies - - - - -	- -	6	- -	5	6
Total Number arrived - -	156	28	- -	- -	184
Of which Number went into Dock - -	- -	- -	41	18	59

Appendix, No. 24.

ABSTRACT of the Number of Ships (and their Tonnage) which entered the *Commercial Docks* in the following Years:

YEAR.	WOOD LADEN.		CORN AND SEED.		TALLOW.		OIL.		HEMP.		PITCH AND TAR.		SUNDRIES.		LIGHT.		TOTAL IN EACH YEAR.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1809	140	30,012	1	213	-	-	4	1,289	25	4,455	1	50	3	585	38	12,604	212	49,208
1810	75	15,707	8	698	3	766	12	3,407	16	3,363	-	-	4	394	165	30,635	283	54,970
1811	90	26,431	-	-	-	-	10	2,158	8	1,681	4	1,087	5	428	67	18,790	184	50,575
1812	69	21,492	3	685	-	-	5	1,639	8	2,040	3	1,036	1	172	114	24,783	203	51,847
1813	185	46,615	38	7,225	-	-	10	2,909	2	602	2	269	2	175	128	22,131	367	79,926
1814	145	34,774	46	4,991	-	-	7	2,175	-	-	-	-	-	-	95	12,562	293	54,502
1815	384	97,625	7	1,279	-	-	5	1,630	-	-	-	-	-	-	102	18,635	498	119,169
1816	46	14,827	8	1,389	-	-	8	2,312	-	-	-	-	-	-	92	12,511	134	31,039
1817	138	39,783	47	6,801	-	-	4	1,358	-	-	-	-	-	-	79	14,345	268	62,287
1818	162	46,577	70	10,270	-	-	8	2,326	-	-	-	-	-	-	90	17,768	330	76,441
1819	254	67,973	30	4,702	-	-	3	987	-	-	-	-	-	-	89	21,540	376	95,202
1820	152	43,619	22	2,649	-	-	6	1,939	-	-	-	-	-	-	90	21,424	270	69,631
1821	218	59,539	27	3,488	-	-	3	951	-	-	-	-	-	-	107	17,984	355	81,962
1822	167	45,332	5	535	-	-	1	293	-	-	-	-	1	244	91	18,198	265	64,602
1823	294	87,361	2	550	-	-	4	1,165	-	-	-	-	-	-	89	14,443	389	10,3519
1824	390	114,329	5	935	-	-	1	278	-	-	1	152	-	-	108	15,529	505	131,223
1825	520	151,688	43	4,690	12	3,374	-	-	-	-	3	475	7	1,107	126	15,094	711	176,328
1826	260	80,537	43	5,310	12	3,418	1	293	-	-	-	-	-	-	125	13,192	441	102,750
1827	247	74,759	23	4,040	11	3,047	1	278	-	-	-	-	1	169	132	14,197	415	96,490
1828	214	67,880	47	5,615	18	5,038	-	-	-	-	-	-	-	-	105	10,353	384	88,886
1829	257	77,591	72	11,658	13	3,699	-	-	-	-	-	-	-	-	100	13,706	442	106,654
1830	168	54,733	31	4,131	9	2,172	2	557	-	-	1	235	-	-	72	9,403	283	71,231
1831	223	75,445	45	8,712	9	1,958	-	-	-	-	-	-	-	-	47	6,643	324	92,758
1832	101	32,895	18	2,813	8	1,931	-	-	-	-	-	-	-	-	36	8,286	163	45,925
1833	125	39,065	5	663	13	3,008	1	281	-	-	-	-	-	-	29	5,897	173	48,914
1834	157	48,355	21	2,175	1	226	1	290	-	-	-	-	-	-	26	3,774	206	54,820
1835	134	43,643	7	830	-	-	-	-	-	-	-	-	-	-	31	5,147	172	49,620
1836 up to 24 June	30	10,636	4	739	-	-	1	324	-	-	-	-	-	-	15	3,294	50	15,043

Appendix, No. 25.

A RETURN of the SOUNDINGS of the RIVER last taken between *London Bridge* and *Bugsby's Hole*, according to the 19th Bye-law of the Port of London, from Low-water Mark on one side of the River to Low-water Mark on the other; setting forth the several Periods when Soundings have been taken between the Month of September 1829, the time when the Bye-laws were established, and the last Examination;—Also, a Statement of the SHOALS and BANKS or other Impediments to the Navigation between *Bugsby's Hole* and *London Bridge*, with the Depth on each at Low-water Mark, Spring Tides, according to the Soundings last taken by the Harbour-masters.

Across the River, at Low-water Mark, from	SOUNDINGS OF THE RIVER THAMES, IN FEET.	TO
Cotton's Wharf	14, 15, 15, 15, 14, 14, 14, 13, 15, 14, 14, 14, 15, 12, 12	Billingsgate.
Battle Bridge	10, 11, 11, 10, 11, 11, 11, 11, 11, 12, 12, 9, 7	Custom House Lower Stairs.
Symond's Wharf	12, 12, 12, 13, 14, 15, 15, 15, 16, 15, 14, 12, 12, 11	Brewer's Quay.
Pickle Herring	11, 11, 12, 12, 12, 12, 12, 12, 13, 13, 13, 10	Above King's Stairs, Tower.
Davis's Lower Wharf	9, 10, 10, 10, 11, 11, 11, 12, 12, 13, 14, 14, 13, 12, 12, 11	Iron Gate.
Butler's Wharf	9, 9, 10, 10, 10, 11, 9, 9, 10, 12, 13, 14, 15, 18, 17, 17, 14	Watson Wharf.
Horslydown New Stairs	9, 9, 9, 10, 11, 12, 13, 14, 14, 12, 10, 8, 9, 9, 10	Alderman's Stairs.
Mill Stairs	8, 10, 11, 13, 14, 14, 14, 12, 11, 10, 9, 9	Hermitage Dock.
East Lane	11, 13, 15, 13, 15, 15, 16, 16, 15, 14, 14, 11, 12, 10, 8, 9, 9	Union Stairs.
Fountain Stairs	7, 7, 8, 9, 11, 12, 14, 19, 19, 19, 20, 20, 20, 20, 21, 19, 14, 12	Wapping Old Stairs.
Rotherhithe Stairs	10, 10, 11, 12, 14, 15, 15, 16, 16, 15, 16, 16, 15	Baltic Wharf.
Prince's Stairs	12, 13, 16, 17, 17, 16, 15, 15, 15, 15, 14, 14, 14, 14, 13	King Henry Stairs.
Church Stairs	14, 13, 11, 10, 13, 13, 13, 11, 11, 13, 15, 15, 15, 15, 14	Fraser and Hullahs.
Tunnel Wharf	9, 10, 12, 14, 15, 16, 17, 17, 14, 14, 15, 16, 17, 16, 15, 14, 11	King Edward Stairs.
Hanover Stairs	12, 12, 12, 12, 12, 18, 20, 19, 18, 16, 16, 16, 16, 16, 16, 15, 12, 12, 10	New Crane Stairs.
King's Mills	10, 11, 12, 12, 13, 14, 14, 15, 16, 16, 17, 17, 17, 17, 16, 14, 13, 11, 10, 9	King James Stairs.
Bull Head Dock	7, 9, 11, 11, 13, 14, 15, 15, 15, 15, 15, 15, 14, 14, 14, 13, 12, 10	Shadwell Dock Stairs.
King and Queen Dock	5, 8, 9, 11, 12, 12, 12, 13, 13, 14, 15, 16, 15, 15, 13, 12, 12, 12, 11	Bell Wharf.
Globe Stairs	6, 11, 14, 15, 15, 17, 16, 16, 17, 17, 17, 16, 15, 15, 14, 11, 11	Ratcliffe Cross Dock.
Horse Ferry	10, 14, 18, 20, 19, 19, 19, 19, 18, 17, 14, 13, 13, 13, 11, 5	Regent's Canal.
Lavender Dock	15, 19, 21, 19, 19, 18, 17, 15, 15, 15, 15, 14, 12, 11, 11, 10	Kidney Stairs.
Pageants	4, 6, 12, 13, 14, 15, 16, 15, 15, 14, 14, 13, 12, 12, 7	Blythe's Wharf.
Jennings's Wharf	9, 16, 17, 21, 21, 21, 20, 18, 15, 14, 13, 12, 12, 9, 5	Duke's Shore Dock.
Lower part of Jennings's Estate	Shoal. 6, 9, 18, 18, 18, 18, 19, 16, 16, 11, 10, 8, 7, 5, 5, 4, 3	Limekiln Dock-yard.
Cuckold's Point	6, 7, 7, 9, 22, 21, 20, 18, 15, 12, 13, 15, 15, 14, 14, 14, 10	Joad and Curling's Dock.
King's Dock-yard	6, 12, 21, 21, 21, 17, 18, 18, 17, 17, 17, 15, 15, 13, 10	Union Dock-yard.
Blackwell's Brewhouse	4, 4, 9, 13, 17, 19, 19, 14, 14, 16, 17, 18, 19, 18, 15, 14, 12, 12	City Canal.
Durand's Wharf	5, 6, 7, 7, 9, 13, 16, 15, 15, 15, 14, 14, 14, 14, 14, 13, 13, 13	Price's Wharfs.
Trinity Wharf	6, 9, 13, 14, 15, 16, 14, 15, 13, 13, 13, 12, 12, 11, 11, 11	Snoke's Dock.
Lower part of Solly's	9, 12, 13, 13, 13, 13, 12, 12, 12, 12, 12, 12, 12, 13, 14, 11, 10, 10, 10, 10, 8, 6	Direct over.
Condemned Hole	Whiting Shoal. 9, 13, 14, 15, 14, 15, 11, 10, 9, 9, 9, 11, 11, 12, 11, 11, 11, 11, 12, 10, 10, 11, 10, 7, 9, 9	- ditto.
Commercial Dock	4, 6, 9, 9, 11, 11, 12, 12, 13, 15, 16, 16, 17, 18, 19, 20, 20, 19, 15, 12, 10, 10, 10	Blackett's Dock.
East Country Dock	7, 8, 9, 9, 10, 11, 22, 22, 22, 23, 22, 22, 23, 14, 10, 14, 8, 8, 6, 6, 5, 5	Mellish's Wharf.
Gordon's Dock-yard	7, 11, 13, 14, 15, 15, 15, 16, 17, 18, 16, 16, 15, 13, 12, 10, 9, 8, 8, 8, 7, 6	Mill Wall.
Victualling Office	11, 12, 13, 15, 15, 16, 18, 20, 22, 21, 21, 20, 20, 18, 16, 15, 12, 10, 10, 8, 7	Smock Mill.
Below the Victualling Office Causeway	14, 14, 15, 17, 19, 19, 18, 17, 15, 20, 20, 21, 19, 19, 13, 12, 11, 9, 9, 7, 7	Brown and Lenox's Wharf.
Upper Slip, King's Yard	13, 14, 9, 12, 13, 16, 16, 17, 14, 21, 21, 21, 23, 20, 19, 18, 13, 13, 9, 7, 5	Mast House.
Lower Slip, King's Yard	10, 14, 18, 15, 18, 20, 22, 24, 25, 27, 29, 23, 19, 19, 17, 15, 11, 8, 6, 5, 3	Below Drunken Dock.
Middle Water Gate, Deptford.	18, 17, 16, 18, 22, 21, 22, 21, 20, 20, 20, 20, 19, 19, 19, 16, 16, 13, 12, 10, 11, 5, 5	Direct over.
Barnard's Yard	19, 18, 20, 22, 21, 24, 25, 23, 22, 21, 22, 25, 23, 22, 23, 21, 21, 19, 18, 9	- ditto.
Deptford Creek	11, 22, 25, 26, 26, 26, 27, 26, 25, 27, 27, 27, 26, 25, 25, 24, 22, 21, 18, 14, 10, 8	- ditto.

Across the River, at Low-water Mark, from	SOUNDINGS OF THE RIVER THAMES, IN FEET.	TO
Martyr's Yard, Greenwich	22, 21, 21, 25, 25, 26, 26, 26, 27, 29, 28, 28, 26, 26, 25, 22, 22, 17, 14, 10	Direct over.
The Sun	19, 21, 23, 23, 23, 23, 26, 26, 26, 25, 24, 22, 20, 20, 19, 16, 13	Isle of Dogs Causeway.
Garden Stairs	21, 21, 22, 22, 22, 20, 19, 19, 19, 18, 18, 16, 16, 19, 18, 21, 19, 17	Direct over.
Ship Dock	11, 23, 23, 22, 24, 24, 24, 22, 23, 22, 24, 25, 24, 22, 18, 10, 10, 7	ditto.
Crane Stairs	7, 9, 11, 10, 10, 11, 12, 13, 13, 14, 14, 14, 15, 16, 17, 16, 16, 15, 15, 14, 13, 10	ditto.
Crown and Sceptre	9, 12, 17, 17, 16, 15, 19, 19, 19, 19, 21, 22, 21, 22, 22, 19, 16, 12, 10	ditto.
Golden Anchor	8, 9, 10, 11, 12, 13, 14, 16, 18, 17, 17, 18, 19, 19, 19, 20, 19, 20, 17, 17, 15, 11, 6	ditto.
Lower part of Shad Wharf	4, 3, 4, 6, 7, 7, 15, 12, 12, 12, 13, 17, 15, 15, 14, 13, 14, 14, 14, 18, 16, 18, 17, 13, 5, 2, 1, 1	ditto.
Midway between Shad Wharf and Rope Ground.	4, 6, 7, 7, 8, 6, 7, 8, 10, 12, 13, 15, 16, 19, 16, 17, 21, 18, 16, 14, 13, 13, 13, 8, 10, 10	ditto.
Rope Ground	4, 7, 10, 11, 13, 13, 12, 12, 13, 12, 13, 16, 21, 17, 14, 12, 13, 14, 17, 17, 15, 14, 12, 11, 10, 8, 5	ditto.
Four equal Distances from the Rope Ground	7, 10, 17, 15, 19, 19, 18, 17, 18, 17, 17, 18, 17, 17, 17, 17, 17, 17, 16, 13, 18, 20, 21, 19, 15, 12, 10, 7, 5	ditto.
	10, 11, 13, 13, 15, 15, 15, 15, 14, 14, 14, 13, 13, 11, 13, 16, 13, 14, 15, 15, 15, 14, 12, 11, 8, 6, 4, 3	ditto.
	17, 16, 18, 17, 17, 17, 16, 17, 18, 18, 17, 17, 16, 15, 15, 15, 15, 13, 13, 12, 12, 12, 12, 11, 10, 10, 9, 8, 4	ditto.
	5, 16, 16, 15, 16, 16, 18, 18, 18, 17, 18, 19, 18, 18, 19, 18, 18, 17, 16, 15, 15, 14, 14, 12, 12, 12, 11, 11, 11, 11, 10, 9, 8, 7	Folly House.
Direct over	9, 15, 15, 15, 14, 16, 18, 18, 19, 19, 19, 19, 19, 19, 19, 20, 20, 17, 21, 17, 17, 16, 10, 9, 8, 7	Pitcher's Dock.
Ditto	11, 12, 15, 16, 18, 19, 19, 20, 22, 21, 21, 21, 18, 20, 20, 20, 16, 16, 23, 24, 12, 11, 9, 7, 4, 2, 5, 10	The Gun Tavern.
Upper Mooring-post of West India Docks.	8, 9, 12, 13, 13, 18, 19, 20, 22, 22, 19, 19, 19, 20, 19, 22, 23, 21, 20, 19, 18, 15, 15, 15, 15, 14, 14, 14, 14, 14, 13, 15, 5.	Upper Pier of West India Docks.
Third Mooring-post of West India Docks.	11, 14, 18, 20, 22, 24, 24, 25, 25, 25, 24, 24, 25, 24, 23, 25, 27, 28, 29, 24, 23, 21, 20, 21, 22, 22, 22, 11	Blackwall Stairs.
Below the Fourth Mooring, West India Docks.	5, 11, 16, 17, 18, 20, 25, 26, 26, 23, 24, 26, 25, 25, 25, 23, 22, 22, 23, 23, 22, 22, 22, 22, 20, 18.	Middle Dock, Wigram's Yard.
Fifth Mooring-post, West India Docks.	5, 10, 13, 18, 25, 25, 25, 23, 25, 26, 26, 28, 29, 29, 27, 28, 28, 28, 28, 28, 25, 24, 21, 19, 13, 5	Lower part of Wigram's Yard.
First Mooring-post of the East India Docks.	2, 4, 9, 14, 18, 21, 21, 26, 26, 26, 26, 26, 26, 24, 18, 19, 20, 26, 30, 24, 25, 25, 25, 7.	East India Dock, lower part of Anchor Wharf.
Between the 2d and 3d East India Dock Mooring-posts.	9, 19, 18, 20, 21, 22, 22, 19, 19, 20, 20, 20, 19, 19, 18, 20, 21, 22, 24, 26, 26, 29, 34, 32, 26, 25, 24, 24, 18.	Causeway, East India Docks.
Lower Mooring-post, East India Docks.	6, 6, 9, 12, 13, 15, 16, 17, 17, 16, 16, 15, 16, 17, 16, 15, 15, 15, 15, 16, 17, 19, 19, 19, 19, 16, 16, 14, 14, 15, 15, 15, 12, 5	Orchard House Causeway
Direct over	4, 5, 11, 12, 14, 15, 16, 16, 16, 18, 18, 20, 20, 19, 19, 20, 20, 18, 18, 17, 15, 12, 17, 20, 15, 14, 12, 12, 13, 13, 12, 10, 10, 9, 9, 9, 9, 9, 9, 8, 7, 7, 7, 6	Bow Creek.

No. 25.
Soundings of the River.

The Harbour-masters beg leave to represent, in explanation of the above Return, that the soundings were in progress during the years 1830 and 1831, registered in their office, and the plans transmitted to the Thames Navigation Committee, for their information.

The Harbour-masters have continued from time to time to take soundings at low-water, whenever the opportunity offered, to the present time, to ascertain the depths of the River at the tiers, &c., in order to berth vessels properly, according to their draft of water; and any material alteration in the bed of the River has been reported by the Superintendent Harbour-master to the Navigation Committee. The Harbour-masters further submit a series of plans, taken jointly with Mr. Elmes, surveyor of the Port of London, by order of the Navigation Committee, to show the extent and nature of the shoals existing in the River Thames between London Bridge and Woolwich, completed in October 1834, in the execution of which a general proof of former soundings was ascertained.

Plan 1, a Chart of the Shoals in the upper part of Woolwich Reach.

Plan 2, a Chart of the Shoals in Bugsby's Hole.

Plan 3, a Chart of the Gun Shoal in Blackwall Reach.

Plan 4, a Chart of the Shoals in the lower part of Greenwich Reach, and in the upper part of Blackwall Reach.

Plan 5, a Chart of a Shoal off Greenwich.

Plan 6, a Chart of the Whiting Shoal in Limehouse Reach.

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Plan 7, a Chart of the Shoal at Limehouse Hole.

Plan 8, a Chart of the Shoal off the Alderman's Hole.

No. 25.
Soundings of the River.

During the year 1835 plans of the soundings of the shoals above and below London Bridge have been sent to the Worshipful the Navigation Committee, by their order, and also a plan of the soundings of the River opposite to His Majesty's Victualling-yard at Deptford.

The Harbour-masters beg further to state, that there are many projections and inequalities in the bed of the River, arising more particularly from sluices, sluice-gates, sewers, cleansing-docks, moorings and sets of the tide.

The soundings in this Return are taken by the Trinity standard, low-water mark, and therefore at least two feet may be deducted to place them upon the average low-water mark, spring-tides.

Harbour-masters' Office, 29 Feb. 1836.

John Fisher,
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters of the Port of London.

Appendix, No. 26.

No. 26.
Complaints by Harbour-masters.

A RETURN of the Number of COMPLAINTS lodged by the Harbour-masters before the Magistrates, for a breach of the Bye-laws, Orders and Regulations of the Port, since September 1829, setting forth the Nature of the Offences and the Number of Convictions.

THE Harbour-masters beg to state that no complaints or convictions have taken place before the magistrates, in consequence of the late city solicitor, who was instructed to prepare the necessary informations, having been of opinion that legal difficulties presented themselves to carrying the convictions provided for by the existing laws into effect; at the same time the Harbour-masters have to report, that on several occasions they have caused the removal of vessels that have obstructed the navigation and violated their orders, and the vessels so removed have paid the expenses of the pilot, men, warps, &c., which the Harbour-masters have considered a sufficient penalty.

A RETURN of the Number of VESSELS that have been forcibly removed by Pilots acting under the Authority of the Harbour-masters.

Ship's Name.	Master's Name.	Removed from.	Whereto.	Cause of Removal.	Date.	Expenses. £.	s.	d.	Why the Penalties have not been enforced.
Batavier -	Dunlop	Tower -	Limehouse -	- - obstruction to the navigation.	29 April 1830	22	7	-	Not proceeded with in consequence of the defect of the existing laws.
Batavier -	ditto -	ditto - -	- - Redriff-stairs.	ditto - -	4 June 1830	19	7	-	
Batavier -	ditto -	ditto - -	East-lane -	ditto - -	17 June 1830	14	1	-	
Ann - -	Gray -	- - Church-stairs.	Deptford -	- - disobedience to orders.	3 Feb. 1832	7	19	-	- - conviction not proceeded with on account of the master of the ship paying the expenses of the removal.
Jane - -	Dunn	Mill Hole	Limehouse	ditto - -	21 Oct. 1832	12	11	9	- - conviction not proceeded with, under the advice of the late city solicitor.
Henrietta -	—	- - Ratcliff Cross, Lower Tier.	- - the Middle Stone-stairs Tier.	- - obstruction to the navigation.	5 Jan. 1833	7	-	-	- - - conviction quashed on the master of the ship paying the expenses of the removal.

Harbour-masters' Office, 29 Feb. 1836.

John Fisher,
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters, Port of London.

No. 26. Reports of Harbour-masters.

A RETURN of so much of the Periodical Reports of the Superintending Harbour-masters to the Port Committee as relates to Impediments, Obstructions, or Remarkable Occurrences, according to the 16th Bye-law, for the Years 1833, 1834 and 1835.

31 December 1832.

Laid before the Worshipful Thames Navigation and Port of London Committee, at Guildhall, the 11th day of January 1833.

In the early part of the month there has been much blowing weather, but during the latter part it has been moderate, accompanied with calms and fog.

During the time I have been in the harbour service, I never recollect so many colliers arriving in the River as there has been during this month, in consequence of which large numbers have been prevented from coming into the Pools to discharge. Some of them have been on demurrage for three weeks after their cargoes have been sold before berths could be found for them in the Pool, and there has been considerable difficulty at times (from their numbers, laying from Bugsby's Hole and upwards) for vessels to pass up, and several of the pilots have stated, that even as low down as Greenhithe the navigation at times has been greatly obstructed by them.

I beg leave to lay before your Committee a copy of a letter from Sir John Hall, secretary to the St. Katharine Dock Company, complaining of the state of the Pool on Sunday the 9th instant, with copies of other papers relative to the same; and from the frequent complaints from Sir John Hall, respecting the difficulties of vessels navigating through the Pools to and from their docks, I think it highly necessary to state, for your information, my opinion respecting the same.

The causes of obstruction and impediments to the navigation in the Port of London arise principally from the want of sufficient space for the accommodation and delivery of the vessels employed in the coal trade in the Pools, in consequence of which large fleets are detained about Bugsby's Hole, Woolwich, Blackwall, Greenwich and Deptford, which at times, from their numbers, renders it difficult for large vessels to navigate past those places; and it frequently occurs that vessels after having sold their cargo of coals are prevented for a fortnight or three weeks from coming up into the Collier Pool for delivery, which is an additional expense to their owners, as the crews are generally engaged by the run, and cannot quit their vessels until moored in the Pool.

Another cause of obstruction is from the great and increasing number of steam-vessels navigating the upper part of the River at all times of tide, and from their breadth of beam (some of them upwards of 45 feet) they require a great space for a free transit through the Pools. They are also used in towing vessels to and from the London and St. Katharine's Docks, and when going over the tide cause much confusion and damage to vessels passing regularly through the Pools; and it frequently occurs that large vessels, from 600 to 800 tons, pass to and from the St. Katharine Dock, which, if continued, must require so open a space for navigating them that the proprietors of wharfs, and the property on the banks of the River between Limehouse and London Bridge, will suffer considerably for want of accommodation, by the reduction of the number of vessels in the tiers opposite their premises, as they have always considered the Pools more in the nature of a dock than otherwise, and that in establishing the above docks, the proprietors must have been fully aware of the difficulties they would have to encounter in bringing such large vessels into them; in fact, I see no other remedy than compelling the colliers to go into a dock, which will ensure a regular supply of coals to the metropolis, and I am confident will be the means of great saving to the shipowners, as the wear and tear of their vessels while navigating and laying in the River must be very considerable; besides, the public will derive great benefit by a depôt of coals being established which they can have access to at all seasons of the year, as it frequently occurs that during a severe winter, although a large supply may be in the market, from the navigation being stopped by ice for weeks together, there is no possibility of delivery, which the small consumer feels the ill effects of. The East Country Commercial Docks and Surrey Canal, which are doing little or nothing at present, might be advantageously converted to that purpose.

The frequent accidents and loss of life that occur (which are principally in the Pools) are owing to the wherries that are now in use being too small for that purpose; in fact some of them when full of passengers are not more than two or three inches from the gunnel to the water's edge, and when a steam-vessel passes them they must inevitably be swamped; indeed long before steam navigation came into use they were considered unsafe and dangerous. The skiffs generally used by the Greenwich watermen are the most safe and proper boats according to the present system of navigation in the River Thames.

From the above statement, your Committee must be fully aware of the difficulties and conflicting interests which the Harbour-masters have to contend with.

(signed) *John Fisher*,
Superintending Harbour-master.

21st day of January 1833.

Present—Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieutenant William Mayott.

Read before the Navigation and Port of London Committee, at their Monthly Meeting, 8th February 1833.

A letter from Mr. Town Clerk, enclosing the copy of a letter received from Sir John Hall, secretary to the St. Katharine's Dock Company, was laid before this meeting and read, as follows:—

Gentlemen,

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No. 26.
Reports of Harbour-masters.

Gentlemen, Guildhall, 8 December 1832.

I AM directed to transmit you the accompanying copy of a letter and communication from Sir John Hall, and to request you will consider the same, and report your opinion thereon to the Sub-navigation and Port of London Committee at your earliest convenience.

I am, Gentlemen, your obedient servant,

The Harbour-masters of the Port of London. *Henry Woodthorpe.*

Sir, St. Katharine's Dock-house, 23 Nov. 1832.

I AM directed by the Board of Directors of the St. Katharine Dock Company to request you will, at your earliest convenience, bring under the notice of the Worshipful the Port of London Committee the necessity of applying to Parliament to amend the Act of the 10th Geo. 4, c. 124, and obtain further powers to enable the Harbour-masters of the Port of London to execute effectively the important duties of their office, and thus secure to the commerce and navigation of the metropolis the advantages contemplated by the Legislature, and the bye-laws framed in pursuance of such Act.

Many of the impediments that daily exist to the free navigation of the River, and which are growing evils, appear to be beyond remedy, from the want of more summary powers; whilst many of the captains of vessels, but particularly colliers, (aware of the defect in the law) offend with impunity, and set the Harbour-masters at defiance.

The difficulties that exist in carrying the bye-laws into effect can, if required by the Committee, be fully explained by the Harbour-masters, who cannot fail to be deeply sensible of the impracticability that exists of giving to the shipping frequenting the Port of London above the Pool the security and facility of navigation which the interests of its commerce and shipping imperatively demand.

The Board, under the circumstances stated, abstain from troubling the Committee with any tedious details, as the difficulties and obstructions, which are of daily occurrence, are too notorious to require comment from them or illustration.

I am at the same time to add, that the Board will be most happy to co-operate with the Committee in carrying the object of this representation into effect, if their assistance should be deemed useful; and from the extreme importance of the subject, it is hoped that no time will be lost in giving it immediate consideration.

I beg further to invite the attention of the Committee to the following extract from a Report of a Committee of the House of Commons, dated the 14th October 1831, appointed to take into consideration the state of steam navigation, and also the evidence upon which the recommendation is founded.

"That it appears that the regulations and directions for keeping a proper extent of passage-way on the Thames, near London, for vessels and boats to pass up and down are not duly attended to or enforced by the Harbour-masters, from which mischief and inconvenience result. Your Committee are therefore of opinion that it is necessary that the authorities in the city, who possess jurisdiction in these matters, should forthwith have their attention called to them, with a view to their applying such early remedies on these two points as they may be found to require."

And I am further to refer to the accompanying Memorandum, of some points which it is conceived are deserving the serious consideration of the Committee, and I have the honour to remain, Sir, your obedient servant,

Henry Woodthorpe, Esq., &c. &c., Guildhall. *J. Hall,* Secretary.

Sir John Hall's Memorandum.	*The Harbour-masters' Reply thereto.*
The bye-laws to undergo revision, with a view to embrace such amendments as they are susceptible of, in so far as the authority of the 13th section of the 10th Geo. 4, c. 124, extends.	
1st. The penalties which are imposed by the 9th section of the said Act to be made recoverable from the master, pilot or other person having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat.	The Harbour-masters suggest, that in default thereof, the penalties and expenses to be recovered upon the said ship, vessel, steam-boat, lighter, barge, craft or boat.
	Mr. Cousens's opinion upon this clause is, that he thinks the present Act of Parliament sufficiently strong for the purposes contemplated by the Legislature.
2d. That penalties be imposed upon the masters, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat, which shall in any manner obstruct or impede the navigation of the River, and especially the passage of the width of not less than 300 feet, directed to be kept free and unobstructed by the bye-laws, or which ship, vessel, or steam-boat shall be	2d. That penalties be imposed upon the master, owners, pilots, or other persons having charge of any ship, vessel, steam-boat, lighter, barge, craft or boat, which shall in any manner wilfully obstruct or impede the navigation, and provided accommodation can be found for the increasing coal and coasting trade, as it is impossible, from strong tides, winds, and a variety of other causes, to give sufficient

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made fast or moored at any tier at which the ships, vessels, or steam-boats, shall amount to or exceed the number limited by any bye-law, and also of all lighters, barges, craft, or boats which shall be laid at or made fast to the outerside of the outermost ship or vessel lying in any of such tiers, so that a channel of not less than 300 feet, in manner directed by the bye-law, shall be kept a clear, free and unobstructed passage.

3d. That a penalty be imposed on the owner, master, pilot, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat which shall lay or moor at or in any of the in-shore passages or ferries, so as to obstruct the transit thereof.

4th. That powers be granted to the Harbour-masters to order to be removed to such place as they may direct, and if necessary to cause to be removed, any ship, vessel, steam-boat, craft, lighter, barge or boat lying in the Port of London between Blackwall and London Bridge forthwith upon verbal notice, the expense of removal to be paid by the master or owners, unless immediately complied with.

5th. That penalties be imposed upon all and every person who shall obstruct the Harbour-masters in the execution of their duty, and use abusive and offensive language to them, and who shall refuse to obey their orders.

6th. That the Harbour-masters shall have the power to call in aid the officers of the Thames police, for the purpose of enforcing, when necessary, the orders or directions they may give in the execution of their duty.

7th. That moorings with bridles be laid down at such places and in such a manner, between the Red House, Deptford, on the one side of the River, and the King's Arms, Limehouse, on the other, and London Bridge, as shall be deemed necessary and fit for the accommodation of shipping in the Port of London, the stations, numbers of ships, &c. to be permitted to moor or make fast thereat to be limited and defined, regard being had to the free and unobstructed passage of not less than 300 feet in width; and that penalties be imposed upon any master, owner, pilot, or other person in charge of any ship, vessel, steam-boat, craft, lighter, barge or boat, who shall moor or make fast at any other place than at the mooring-chains so laid down, without a special permission, in writing, from the senior Harbour-master.

8th. That the aforesaid passage or channel of not less than 300 feet, between Limehouse and London Bridge, be buoyed off at convenient distances, and in such part of the River as shall be deepest, and where the current or stream runs the strongest.

9th. That not more than 130 vessels, coal-laden, be permitted to lie or moor in the stream, or at any of the tiers above the entrance to the West India Docks in Limehouse Reach at one and the same time, for the purpose of discharging, or after having discharged, to take in their ballast.

That

room for the delivery of coals, to keep at all times the space of 300 feet navigation, and therefore the Harbour-masters consider it would be better for them to keep a free passage for the purposes of navigation, to the best of their judgment.

3d. That a penalty be imposed on the owner, master, pilot, waterman, or other person in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat which shall wilfully lay at or moor in any of the in-shore passages or ferries, so as to obstruct the transit thereof.

Mr. Cousens thinks, as in the first clause, that the present Act of Parliament is sufficiently strong for every purpose contemplated by the Legislature.

4th. Ninth section, 10 Geo. 4, repeals the notice of 12 hours to be given to the master, owner of such ship, &c. &c., and in lieu thereof such reasonable time substituted.

The Harbour-masters beg leave most strongly to recommend both the fifth and sixth clauses.

7th. The Harbour-masters are of opinion that there are sufficient mooring-chains at Blackwall, Deptford and Limehouse, and that no addition is required. The water on the King Arms side of the River is too shoal to admit moorings to be laid down there, and that the public may be allowed to make use of their moorings at the Red House and the King's moorings at Deptford.

Captain Fisher is of opinion that the last part of this clause requires the addition of the words "unless required for His Majesty's service."

8th. The Harbour-masters are of opinion that placing buoys in the River Thames to mark off the passage would be a great obstruction to the navigation, and a constant source of damage and expense, it being notorious that all buoys in the River are a nuisance.

9th. The Harbour-masters are of opinion that a regulation like this would injure and destroy the trade of the Port of London.

10th. This

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That when the term "ship or vessel" shall be used the same shall be construed to extend to vessels and boats propelled by steam.

10th. A provision to be inserted in the Bill for regulating the speed of steam-boats between Cuckold's Point and London Bridge.

11th. Also a provision to be inserted in the Bill for removing the shoals and banks of mud, silt and other stuff not being fit for the purposes of ballast, and to deepen the bed of the River, and preserve a proper depth of channel in the River Thames between Blackwall and London Bridge.

10th. This clause the Harbour-masters recommend to the wisdom of the Legislature.

11th. The Harbour-masters are of opinion that, with the present machinery, no banks or shoals ought to exist in the River Thames.

Friday, 11 Jan. 1833.

Thames Navigation and Port of London Committee.

THE proceedings of the Sub-committee of the 9th instant, on considering the communication from the Harbour-masters, with their opinions on the letter and observations of the St. Katharine's Dock Company relative to the conducting of the harbour service, and the bye-laws for regulating the Port of London were read and agreed to:—Resolved and ordered, that the Harbour-masters do forthwith consider the present Act of Parliament and the bye-laws for the regulation of the Port of London, and report their opinion to the Sub-committee of the best mode to be adopted for improving the bye-laws, with a view to remedy as far as practicable the impediments and inconveniences complained of by the St. Katharine's Dock Company.

(signed) *Woodthorpe.*

The Harbour-masters, in reference to the alteration in the Act of Parliament, beg leave to refer the Port of London Committee to their Report on that subject, 27th December 1832, (the same having been previously submitted to the Committee). They have nothing further to suggest.

With respect to the bye-laws the Harbour-masters beg leave to recommend the following alterations and amendments:

1st Clause to remain, with the addition of the words "mooring-chain" immediately after the words "harbour service."

2d Clause to remain.

3d Clause. And be it further ordained and established, by the authority aforesaid, that the said principal or superintending Harbour-master for the time being shall be furnished and provided (by and at the expense of the said Committee, to carry into execution the Acts of Parliament) with a boat, oars, sails, warps, and every other requisite for the use thereof, and four watermen and a coxswain to row and navigate the same; and each and every of the Harbour-masters already appointed, or to be appointed, to be furnished in like manner with a boat, and requisites for the use thereof, and two men to row and navigate the same.

Captain Fisher is of opinion that a coxswain for his boat may be dispensed with.

4th Clause. From the alteration in the third clause will render this one unnecessary.

5th Clause to remain.

6th Clause to remain.

7th Clause to remain; but in addition, that the office for the lower station be established at Greenwich, with the like regulations.

Messrs. Cousens and Mayott are further of opinion that a clerk should be attached to the said office. Captain Fisher and Mr. Rowland to the contrary.

8th Clause to remain, with the exception of the omission of that part which refers to the boats; for which, see third clause.

9th Clause to remain.

10th Clause to remain.

11th Clause to remain, with the addition of the words "subject to the knowledge of the superintending Harbour-master."

12th Clause to remain.

13th Clause to remain, with the exception of the penalty being 40*s.* instead of 5*l.*

Captain Fisher is of opinion that there is no necessity for altering the penalty.

14th Clause to remain.

15th Clause to remain, with the addition of the words "mooring-chains."

16th Clause to remain.

Messrs. Cousens and Mayott are of opinion that the monthly reports to the Committee should be signed by a majority of Harbour-masters.

Captain Fisher and Mr. Rowland are of opinion, that as the subject has been so often decided by the Committee, it should not be disturbed.

17th Clause to remain.

18th Clause to remain.

19th Clause to remain.

20th Clause to remain.

21st Clause to remain.

22d Clause. And be it further ordained and established, by the authority aforesaid, that the

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the said Harbour-masters, or any or either of them, or any clerk, officer, waterman, or other person employed by or under the direction of the said Committee, shall not, under any pretence, accept or receive from any person or persons whatsoever, any gratuity, fee or reward, directly or indirectly, for anything done or omitted to be done by him, them, or any of them, in the discharge of their several and respective duties or employment; nor shall they or any or either of them give any preference, or show any favour or partiality in the mooring or anchoring of any ship, vessel or steam-boat, or in any other matter or thing regarding their respective duties, but shall direct the mooring or anchoring thereof in such manner as her size, draft of water, the trade wherein she is employed, and the competency of the moorings, in his or their fair and impartial judgment, shall require; due care and attention being always paid by the respective Harbour-masters to preserve a free and unobstructed passage for the navigating of vessels between London Bridge and Bugsby's Hole.

The remaining part of this clause to be omitted.

23d Clause. And for the purpose of preserving a free and unobstructed passage through the Pools, be it ordained and established, by the authority aforesaid, that the Harbour-masters are hereby authorized and ordered to detain at Greenwich and Blackwall all vessels coal-laden from entering the Pools, whenever the Harbour-master whose turn of duty it shall be on the lower station shall deem necessary for preserving a free and unobstructed passage through the Pools; and whenever it shall appear to the said Harbour-master on duty as aforesaid that no more vessels coal-laden should proceed to the Pools, then the said Harbour-master shall cause a flag, half red, half white, to be hoisted on a flag-staff provided for that purpose, at or near the said office at Greenwich. And be it further ordained and established, by the authority aforesaid, that in case any master, pilot, waterman or other person having charge or command of any ship or vessel coal-laden, or in part coal-laden, shall proceed higher up the River than Deptford after the said flag is hoisted, or shall remove from the station at Greenwich or Blackwall, without permission first obtained in writing from one of the said Harbour-masters, he the said master, pilot, waterman or other person having charge or command of such ship or vessel, shall for every such offence forfeit and pay the sum of 5 *l.*; and the Harbour-masters are hereby authorized and directed to cause to be removed any such ship or vessel out of the said Pools, or to any place or such places as he in his discretion may think fit, and the expenses of such removal shall be paid by the master or owner of such ship or vessel.

Mr. Cousens is of opinion that the number of vessels to moor at the different tiers should be stated, and also those moored at their own anchors.

24th Clause. And be it further enacted, that in case the owner, master, pilot, servant or other person having the charge or command of any ship or other vessel or steam-boat (except those of the corporation of the Trinity-house) coming into, lying or being in the said River Thames, between London Bridge and Bugsby's Hole (except as hereinafter excepted), shall refuse or neglect to moor, unmoor, move or remove the same, according to the direction and notice of any Harbour-master, to him or them given in writing, or left with some person or persons on board the said ship, vessel or steam-boat, within such reasonable time after the giving or leaving such direction and notice as shall be mentioned in such direction and notice, then and in every such case a sum not exceeding 5 *l.* for every hour after the time expressed in such direction and notice as aforesaid during which such refusal or neglect to moor, unmoor, move or remove such ship, vessel or steam-boat shall be made and continued shall be paid by the master, owner or other person having the charge or command of such ship, vessel or steam-boat, and may be recovered by the said mayor and commonalty and citizens of the owner and master of such ship, vessel or steam-boat, in case of nonpayment on demand, by such ways and means as penalties and forfeitures are recovered by virtue of the said first recited Act; and also that in case any such neglect or refusal to moor, unmoor, move or remove such ship, vessel or steam-boat shall be made as aforesaid, it shall be lawful for any Harbour-master and his assistants, and such proper persons as he may direct, if he shall think proper (but not otherwise), to moor, unmoor, move or remove such ship, vessel or steam-boat, and the charges and expenses thereof respectively shall be paid altogether, with and in the same manner as the forfeiture or penalty to be paid for such neglect or default as aforesaid.

25th and 26th Clauses to be done away with, and the following substituted in lieu thereof: That in order to preserve a free and unobstructed transit for craft through the inshore passages and ferries, be it further ordained and established, by the authority aforesaid, that in case any owner, master, pilot, waterman or other person being in charge of any ship, vessel, steam-boat, barge, lighter, craft or boat, shall wilfully lay at or moor in any of the inshore passages or ferries between London Bridge and Bugsby's Hole, so as to obstruct the transit thereof, shall for every such offence forfeit and pay the sum of ; and it shall be lawful for any Harbour-master and his assistants, and such persons as he may direct, to moor, unmoor and remove such ship, vessel, steam-boat, barge, lighter, craft or boat, and the charges and expenses thereof respectively shall be paid by the owner or master of such ship, vessel, steam-boat, barge, lighter, craft or boat.

27th Clause to remain.

28th Clause to remain.

29th Clause to remain.

30th Clause to remain.

31st Clause to remain, with the exception that the words "such reasonable time" be substituted instead of those "within twelve hours."

32d Clause to remain.

33d Clause to remain.

34th Clause

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34th Clause to remain.
35th Clause to remain.
36th Clause to be abolished.
37th Clause. And be it further ordained and established, by the authority aforesaid, that it shall not be lawful for any ship, vessel or steam-boat to lie in any tier, laden in the whole or in part with any timber or combustible stores, to come higher up the said River and Port than Limehouse Hole aforesaid for the purpose of being unladen or discharged (except by the direction or permission of one of the Harbour-masters); and every person who shall unload or cause to be unloaded any timber or combustible stores out of any such ship, vessel or steam-boat, higher up the said River and Port than Limehouse Hole (except as aforesaid), shall forfeit and pay for every such offence the sum of 5*l.*
38th Clause to remain.
39th Clause to remain.

To the Worshipful Thames Navigation Committee.

Gentlemen,

We beg leave to report to your Worshipful Committee that we have taken into full consideration the bye-laws, as directed in your resolution of the 11th instant, which we herewith forward. At the same time, we consider that every accommodation has been given to the St. Katharine Dock Company, consistent with the interests of the coal, coasting and other trades resorting to the Port of London.

We are, Gentlemen, your obedient and faithful servants,

(signed) *John Fisher,*
William Cousens.
Charles Rowland.
William Mayott.

28 January 1833.

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31 January 1833.

The collier detention flag has been flying the whole of the month, but the arrival of colliers has not been so numerous as during the month of December; still the Harbour-masters have found great difficulty in berthing them in the Lower Pool, so as to give the necessary supply to the metropolis.

In the early part of the month the Upper Pool was thin of shipping, owing to the long prevalence of easterly winds; but I am happy to say during the latter part it has been much crowded by the large arrivals of coasters and vessels in the fruit trade, and numbers of them have been detained at the tiers about Rotherhithe and Cherry Garden until accommodation could be found for them at the quays.

On the 26th instant the brig Meanwell, laying at Brewer's quay, caught fire, but it was got under after doing her considerable damage.

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12 February 1833.

Present—Captain Fisher, Mr. Cousens, Mr. Rowland, Lieut. Mayott.

A letter from Henry Woodthorpe, Esq., enclosing the copy of two letters received from Mr. W. Willins, was laid before this meeting, and read, viz.

Gentlemen, Guildhall, 5 February 1833.

I am directed by the Thames Navigation and Port of London Committee to transmit you the accompanying letter from Mr. Willins, and to request you will consider the same and report your opinion to them thereon, as also upon his letter printed in the correspondence relative to the harbour service and bye-laws transmitted.

I am, Gentlemen, your obedient servant,

The Harbour-masters of the Port of London. *Henry Woodthorpe.*

To the Chairman and Gentlemen of the Navigation Committee.

Gentlemen,

I beg most respectfully to address you on the subject which occupied so much of your attention on the 29th, viz. the obstruction caused by the colliers in the Lower Pool.

I will, in the first place, request the favour of your attention to Limehouse Reach. The tide, both flood and ebb, sets on the north-east side of this reach, consequently the channel is on this side. In this channel, in the best water, are moored timber ships, old ships for sale, and light ships laid up; all these vessels may with safety be laid on the mud, close over to the west shore, and keep the channel clear. Duke Shore may also be kept clear.

I now beg your attention to the obstruction complained of. The prevailing winds in England are from the W. and S. W.; a ship coming into the Pool, with either of those winds, must go about to clear the vessels laying at Duke Shore and the lower tier in the Pool, and must stand over to the south shore, out of the tide, to get into the present passage, where the ship becomes nearly stationary; others follow, to the amount of 20 or 30; they also are compelled to go about below this vessel, and remain in the same state, the tide not being strong enough for the ships to fall away clear of each other. When this passage is in this crowded state, a ship of 600 tons, with a valuable cargo from India, drawing nearly 20 feet

No. 26.
Reports of Harbour-masters.

water, towed by a steam-vessel at the rate of eight miles an hour into this passage, must be fortunate if she escapes without doing or receiving damage.

This will always be the state of the passage, if left on the south side of the River, where there is no tide. If the present tiers were reduced to 12 ships, and permitted to remain on the north side, the obstruction would be lessened but not removed.

I therefore most respectfully suggest to your honourable Committee to form the tiers on the south side of the River, from Globe Stairs to King Stairs, Rotherhithe, for colliers, placing a mark on shore where each tier is to be placed, and the number of ships allowed to lay in each tier. By keeping the N. E. side of Limehouse Reach clear, and Duke Shore clear, and forming the tiers on the south side, ships coming into the Pool, with the wind from the westward, will fall away in the best of the tide to their respective tiers, without any trouble or obstruction.

I will again suggest the removal of the causeways, from King James's Stairs to Wapping Ness, by excavating a canal, wide enough to admit a boat at low-water to the bottom of the present stairs. This space, commonly called New Crane Mud, will again become the most valuable anchorage in time of ice in the River. Six or seven tiers for small colliers might instantly be formed on this mud, which has accumulated from the causeways being permitted and disuse of the anchorage.

The coal trade require 250 ships placed in a working situation. By extending the tiers a little westward of King Stairs, 20 tiers may be formed on the Rotherhithe side, to average 10 ships to each tier; New Crane Mud will afford ample room for the remaining 50. In a severe winter, in time of ice, the 50 ships may be worked, when you cannot work those moored in any other part of the River.

I am, Gentlemen, very respectfully, your obedient servant,

7, Augusta Place, Clapham Road, *W. Willins.*
31 Jan. 1833.

My Lord,

I BEG most respectfully to submit to your Lordship a plan I would propose, to insure a clear and safe passage to and from the London and St. Katharine's Docks, at present so much obstructed and unsafe for large ships.

I would propose keeping the east side of Limehouse Reach clear, by mooring the ships usually lying in Limehouse Hole close over to the west shore, from the Commercial Dock to Cuckold's Point, laying the small vessels on the mud.

No ship or vessel, on any pretence whatever, to moor at Duke Shore.

The Pool, from Globe Stairs on the Rotherhithe side to the Platform, I propose forming 15 tiers for colliers, limiting the number to each tier.

On the north side, commonly called New Crane Mud, I would propose removing all the causeways, from King James's westward to Wapping Ness; a number of small vessels could then immediately moor in this space, and in a very short time the mud would again scour away.

The Upper Pool, from Wapping Ness to St. Katharine's Dock, I would also keep the passage on the north side clear, by removing all vessels usually moored on the north side to the opposite shore.

I would also propose ordering all ships or vessels laying up for sale in the tiers westward of the Platform, Rotherhithe, to the mud on the west shore of Limehouse Reach, and vessels with striking masts above bridge, where it is not necessary they should lie near a wharf to take in or discharge a cargo.

Having served my apprenticeship in the coal and Baltic trades, and afterwards commanded one of my own ships in those trades and in the transport service, and having on several occasions been deputed to act as agent for transports where active service was required, I feel no hesitation, if authorized by your Lordship, in saying I can keep a clear and safe passage to and from the docks for large ships.

I will be most happy to wait upon your Lordship to explain further, if required.

I beg to apologize for giving this trouble, and to subscribe myself,

Your Lordship's most obedient servant,

7, Augusta Place, Clapham Road, *W. Willins.*
24 December 1832.

RESOLVED, in reply thereto, that it be represented to the Worshipful Thames Navigation and Port of London Committee, that the proposed place for laying vessels on the west shore in Limehouse Reach is quite dry long before low-water, and the vessels in the timber and Baltic trades, which are of a large size, and great draught of water, would receive injury by so laying and not able to discharge their cargoes. Should they be kept afloat (which is highly necessary) they would cause obstruction in the navigation by laying too far out in the stream.

If vessels were prevented from laying at Duke Shore (which is for the purpose of taking in ballast or waiting tide) there would be much inconvenience and delay to loaded ships getting into the collier tiers.

The space from the chapel ship to the Platform, at Rotherhithe, are regular moored tiers, laid down and used by vessels in the Baltic, corn, Irish, iron, and the larger size vessels in the coasting trade. On the removal of which, the parties concerned in those trades would be seriously injured, and their interests are entitled to the protection of the Committee. And

placing

placing 20 tiers in the place proposed would obstruct the entrances to the Surrey Canal, Bull Head Dock, King and Queen Granary, Mestair's Dock and Hawk's Dock.

Altering the channel for vessels to the north shore of the River would be attended with much inconvenience and damage to vessels passing up and down the pools, as the prevailing winds are from the southward and westward, which would make it a lee shore. Also, it appears, if these plans are adopted, by placing vessels on the west side of Limehouse Reach, and on the south side of the Pools up to St. Katharine's Dock, vessels navigating would create obstruction to the entrances of the West India Docks, at Limehouse, Regent's Canal, and the London Docks, and would destroy the privilege of the spaces in the River granted to them by Act of Parliament; also, it would be placing vessels in the deep-water channel and throwing the navigation into shallower water.

In respect to the removal of the causeways from King James's Stairs to Wapping Ness, and making canals to admit a boat at low-water up to the stairs, we consider that it would be attended with great expense in cutting and in keeping the mud clear.

With respect to laying loaded vessels in the mud tiers and on the ground, we refer your Committee to the following observations, published by Sir John Hall, Secretary to the St. Katharine's Dock Company, dated January, 1833, page 4. "Vessels unloading or loading at places which ebb dry generally sustain injury, and are subject to extraordinary wear and tear." And the Harbour-masters fully concur in that opinion, and they cannot take upon themselves the responsibility in giving such orders, as all persons conversant with shipping must be fully aware of the risks and danger attending it; in addition to which, there is no access to the ships, nor can they but at certain periods discharge their cargoes.

On the whole, from our experience and impartial judgment, we beg to assure the Committee that we cannot point out any better method than the present of placing and mooring vessels in the River Thames, consistent with the general interests of the public, unless by deepening the water and removing the mud and shoals.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott.

20th February, 1833.

Present,—Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieutenant William Mayott.

A RESOLUTION from the Worshipful Thames Navigation Committee, with a plan and letter from Mr. Barchard, of the Coal Market, was laid before this meeting, and read.

Resolved, in reply thereto, that in respect to the Trinity Ballast Lighter Road, the Harbour-masters have never seen any inconvenience arise to the colliers laying in the tiers near that part of the River, and is found convenient for the supply of ballast to the light colliers. This lighter road belongs to the Trinity House, and is under their direction, and, in our opinion, a more convenient place cannot be found.

As to the removal of the chapel ship from its present position and placing a tier of colliers there, the Harbour-masters can see no objection, provided the water is deepened.

In reference to shoals, the Harbour-masters are of opinion, as previously reported to your Committee, that, with the present machinery, no banks or shoals ought to exist in the River Thames.

In placing marks for collier tiers on the shore, the Harbour-masters have to state that the experiment was tried in the year 1826, and found of no utility, as the shifting of the tiers preserves and increases the depth of the water.

In placing moorings for colliers, the Harbour-masters are of opinion that it would be found inconvenient, and attended with great expense in laying them down and keeping them in repair.

With respect to placing two tiers of colliers below Kidney Stairs, we find it impracticable, from the shallowness of the water, hardness of the ground, narrowness of the River, and the race of the tide there, and would tend to obstruct the entrance to the Regent's Canal, and, as reported before to your Committee, would be found to be the only convenient part of the River for placing light vessels to take in their ballast and stop tide.

The space between the Regent's Canal and Shadwell Dock Stairs, we find by experience that there is good room for five tiers, and not enough for six, to allow sufficient space between the tiers for the accommodation of craft hauling in and out.

The four tiers laid down on the plan, in the space from the Tunnel to the Platform, at Rotherhithe, occupy the position of regular moored tiers, as reported before to your Committee, and used by vessels in the Baltic, corn, Irish, iron, and the larger size vessels in the coasting trade, on the removal of which the parties concerned in those trades would be seriously injured, and their interests are entitled to the protection of the Committee.

As long as the colliers are compelled to discharge their cargoes in the Pools, the Harbour-masters have again to repeat to your Committee that there is no better plan than the present for placing and mooring colliers, as their attention (consistent with their other duties) is devoted nearly the whole of the flood-tide to the regulation of the collier tiers.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott.

No. 26.
Reports of Harbour-masters.

28 February 1833.

During the greater part of the month there has been very heavy blowing weather, which has at times caused the colliers to drive from their anchors, and created some obstruction in the Lower Pool, but every attention has been given in removing them into the tiers again. The chain moorings have all held on, with the exception of the one at Battle Bridge.

The arrivals of colliers have not been so numerous as last month; the flag has been up nearly the whole of the month for their detention.

(signed) *John Fisher,*
Superintending Harbour-master.

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31 March, 1833.

During the whole of the month the Pools have been thin of shipping, particularly the Collier Pool; it being now the season of the year when large numbers of vessels leave the coal trade and are employed in the foreign.

The outer arms of the moorings at Battle Bridge and Horslydown have been upset by vessels letting go their anchors foul of them, but they have been immediately relaid and repaired.

(signed) *John Fisher,*
Superintending Harbour-master.

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11 April, 1833.

Present—Captain John Fisher, R. N., Mr. William Cousens, Lieutenant William Mayott.

A communication from the Worshipful Thames Navigation Committee, dated the 28th ultimo, having been read; also a letter from Mr. Barchard, addressed to the Chairman of the said Committee, accompanied with a plan for laying down 228 colliers.

The Harbour-masters having examined the said plan and frequently surveyed the proposed situations, also having duly considered the same,

Resolved, That the Harbour-masters find, from practical experience, that there is not sufficient space between the Shadwell entrance of the London Docks and the Regent's Canal to moor six tiers of colliers, as described by the said plan, without at times obstructing the entrances into the said docks and canal, as the tiers are continually shifting from strong winds and tides.

The Harbour-masters are further of opinion that there is not sufficient space for five tiers of colliers between the Tunnel and the Surrey Canal, for the same reason as stated above.

In respect to appropriating the five moored tiers above Church Stairs for mooring colliers, the Committee will be best able to judge whether those tiers can be taken away from the trades now using them, and for which the chains were laid down.

(signed) *John Fisher,*
William Cousens,
William Mayott.

Harbour-masters' Office, St. Katharine's,
13 April 1833.

Dear Sir,

Would it not be advisable to acquaint the Committee of the coal trade the resolution of your Committee of yesterday, respecting the order to the Harbour-masters for limiting the number of vessels in the collier tiers in the Lower Pool, as directed by the bye-laws, and keeping open a space of 300 feet navigation for vessels passing to and from the St. Katharine's Docks? As I think it necessary that the coal trade should be able to make some arrangement in consequence thereof, in order to ensure the necessary supply to the metropolis; as they would be deprived of great accommodation by the space occupied by the new entrance into the London Docks, and the tiers pointed out by the bye-laws not being available for mooring colliers, as not more than 130 sail can be allowed into the Lower Pool at one time.

I am, dear Sir, yours truly,
(signed) *John Fisher,*
Superintending Harbour-master.

To Edward Tickner, Esq.
Deputy Chairman of the Navigation Committee.

Sir,

Guildhall, 17 April 1833.

You are particularly desired to attend, together with Mr. Cousens, (to whom you will please to send immediate notice,) at the Town-clerk's office to-morrow, Thursday, the 18th April instant, at two o'clock in the afternoon precisely, to meet the Chairman of the Navigation and Port of London Committee upon very special business.

I am, Sir, your obedient servant,
(signed) *James F. Firth.*

To Captain Fisher,
&c. &c. &c.

Harbour-masters' Office, St. Katharine's,
17 April 1833.

I have just this moment received a notice (5, P. M.) from the Town-clerk's office, requiring your attendance with me at the Town-clerk's office to-morrow, Thursday, the 18th April

April instant, at two o'clock in the afternoon precisely, to meet the Chairman of the Navigation and Port of London Committee upon very special business.

During your absence you will direct Mr. Mayott to attend the duty on the lower station, and desire him not to allow more colliers up than can be conveniently accommodated in the Lower Pool, as directed by the Committee's order of the 12th instant.

I am, Sir, your obedient humble servant,

To William Cousens, Esq.
2d Harbour-master.

(signed) *John Fisher*,
Principal Harbour-master Port of London

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29 April 1833.

Present—Captain Fisher, R.N., Mr. Rowland, Lieutenant Mayott, R.N.

A RESOLUTION of the Worshipful Thames Navigation Committee of the 12th instant was laid before this meeting, and read, viz.

Resolved and ordered, That the Harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way of not less than 300 feet are scrupulously enforced, and particularly in the Lower Pool, that they do not permit at any time a greater number of ships or vessels being moored at the several tiers than is allowed by the said bye-laws.

(signed) *Woodthorpe*.

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30 April 1833.

SINCE my last Report the Pools generally have been well filled with vessels. The collier arrivals have been very great during the month, and numbers have been detained below.

The resolution of your Committee of the 12th instant was put in force, consequently great complaints were made of delay and expense in the delivery of vessels in the coal trade, until an arrangement was made by the Chairman to increase the number of vessels in several of the collier tiers; and no complaints have been made as to the state of the navigation, the Harbour-masters having as usual acted with the strictest impartiality towards the different trades resorting to the Port of London.

(signed) *John Fisher*,
Superintending Harbour-master.

Mr. Rowland,—Sir, 3, Cross-lane, 8 May 1833.

THE Lusitannia, Captain Stewart, being detained by you so long that she could not get into the Pool at the time she was metered, she has consequently incurred 6*s*. extra expense to the meter, which we, as the factors, are called upon to pay. We shall therefore feel obliged by your forwarding us the amount, as it was entirely your fault that the ship was detained a day beyond her time.

We are, Sir, your obedient servants,

Wright & Co.,
Per *Charles Lawson*.

The owner of the aforesaid ship has just been here, and has desired us also to apply to you for 3*l*. for one day's demurrage, which we shall also thank you to forward to us.—*W. C.*

To *Edward Tickner*, Esq., Chairman of Navigation Committee.

Sir,

I BEG leave to forward a letter received from Mr. Lawson, applying to me, on behalf of Mr. Brown, for money on account of demurrage and detention of his brig the Lusitannia.

The circumstance arose from carrying into effect the imperative order of the Worshipful Thames Navigation and Port of London Committee of the 12th April 1833, and it is not the only case by many that may be brought forward against the Harbour-masters.

Before I answer the same I beg to be favoured with instructions.

I am, Sir, your most obedient servant,

Harbour-masters' Office, Greenwich, 10 May 1833.

Charles Rowland.

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31 May 1833.

DURING the whole of the month the colliers have been detained below for want of sufficient accommodation for them in the Lower Pool, which has at times reduced the hitherto open space for navigation about Deptford, Greenwich and Blackwall, in consequence of the large arrivals, it being found difficult to find berths for them off those places. Several of the colliers at anchor have hooked the moorings about Deptford and Blackwall, and the upper chain at the Blackwall moorings has been carried away. I have directed Mr. Marshall to repair it without delay.

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The navigation through the Pools has been kept well open and clear, and there has not been the least difficulty in the transit of vessels of the largest size.

(signed) *John Fisher,*
Superintending Harbour-master.

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30 June 1833.

During the month there has been much blowing weather, but the mooring-chains and stones have held on well, and the shipping moored thereto have rode in security, and little or no damage occurred in the Pools. The bridle of the Eel Schuyt Chain parted, but was immediately made good and the vessels remoored.

From the number of colliers arriving, we have as usual been obliged to detain great numbers of them below, and the collier flag has been kept flying (with the exception of a few days) the whole of the month.

(signed) *John Fisher,*
Superintending Harbour-master.

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29 July 1833.

Present—Captain Fisher, Mr. Cousens, Mr. Rowland.

Resolved, That the undermentioned Return be transmitted to Henry Woodthorpe, Esq., Town-clerk, for the information of the Worshipful Thames Navigation Committee, as requested.

A RETURN of the Tiers and the Number of Vessels which have been removed in consequence of spaces allowed on the River *Thames* to the Dock Companies by Act of Parliament.

	Number of Tiers.	Coasting Vessels.	Foreign Trade Vessels.	Total Coasters.	Total Foreign Trade Vessels.
St. Katharine's Dock:					
St. Katharine's Tier	2	14	—	—	—
Barge Roads	2	20	—	—	—
Gilling's Chain, removed by order of the Port Committee	1	7		41	—
London Docks:					
Wapping entrance	4		32	—	—
Shadwell entrance	—	—	—	—	—
Pelican Tier	1	10	—	—	—
Shadwell Dock	1	16		26	32
Surrey Canal	1	18		18	—
West India Dock:					
Limehouse entrance	2		16	—	—
Ditto - South Dock	1		18	—	—
Blackwall entrance to South Dock	3		24		48
East India Dock entrance	4		32		32
				85	112

Total Coasting Vessels - - - - 85
Total Foreign Trade Vessels - - - 112

Grand Total - - - 197

(signed) *John Fisher,*
William Cousens,
Charles Rowland.

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31 July 1833.

I beg leave to state that since my last Report everything connected with the harbour service has been carried on as usual, the duty regularly performed, and the navigation kept open and clear.

The Lower Pool has not been at all thronged with colliers, and from the few arrivals, the Harbour-masters have only had occasion to hoist the flag for two or three days during the month.

Steam-vessels in the Port of London are on the increase, but very few accidents occur, owing to the improved and careful manner of conducting them.

(signed) *John Fisher,*
Superintending Harbour-master.

No 26.
Reports of Harbour-masters.

31 August 1833.

The arrival of colliers in the Port has not been so numerous as the previous part of the year, and there has been only occasion to detain them for two or three days since my last Report.

Yesterday and to-day it blew a heavy gale, but little or no damage was done to the shipping in the Pools. The moorings have all held on well, with the exception of one of the buoys off the entrance of the West India Docks, which parted from the chain, and went on shore at Mill Wall.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 Sept. 1833.

The Pools generally throughout the month have been thin of shipping, and there has been little or no detention of the colliers from coming up into their usual berths.

The greater part of the vessels in the Baltic trade have been discharged in the Pools; but from the few arrivals of coasters and colliers there has been no difficulty in giving them the necessary accommodation.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 October 1833.

During the first part of this month the Pools have been well filled with shipping; but towards the latter part they have been rather thin. No complaints have been made at this office during the present month, and every attention has been given to satisfy all interests, and keep open a clear navigation.

On the 28th instant the Cambridge, a large ship of 800 tons, from Sincapore, (drawing 20 feet 6 inches water,) passed up without any accident to the St. Katharine's Dock.

The mooring-chain of the Limehouse Hole tier has been made good, having been lifted by a collier hooking the upper outer anchor.

(signed) *John Fisher*,
Superintending Harbour-master.

A CIRCULAR LETTER, as follows, addressed to Capt. *Fisher*, Messrs. *Cousens*, *Rowland*, *Mayott*.

Sir, Guildhall, 1 November 1833.

I am directed by the Committee respecting the election of Aldermen, and for inquiring into Municipal Corporations, to desire that you will prepare a statement of the nature and duties of your office in detail, for the information of the said Commissioners, together with a duplicate thereof, and to return both to me on or before Friday the 15th November instant, at 12 at noon at the latest.

I am, Sir, your obedient servant,

Henry Woodthorpe.

Sir, 14 November 1833.

I beg leave to forward you the enclosed Return of Duties, &c. (with duplicates thereof) for the information of the Commissioners for Inquiring into Municipal Corporations.

I am, Sir, yours, &c. &c.
M. Dunnett, jun.

Henry Woodthorpe, Esq.
&c. &c. &c.

A RETURN of the Nature and Duties performed by Capt. *John Fisher*, Principal Harbour-master of the Port of *London*.

To superintend and direct daily the entering, mooring, unmooring, moving and removing of all ships and other vessels, steam-boats, lighters and craft coming into, lying or being in the Port of London, as to the time or times and manner of their entrance into, lying in or going out of the same, and their respective berths, stations and positions, loading and discharging therein.

To regulate the vessels lying at the wharfs and quays within the said Port, and to have the sole and active control of the executive part of the harbour service. To enforce the due observance of the bye-laws and other regulations which may from time to time be established under the authority thereof, or the Acts of Parliament for rendering more commodious and better regulating the Port of London.

To inspect the state of the mooring-chains, &c. and give such directions thereon as may be requisite, and to point out to the Worshipful Thames Navigation and Port of London Committee the various alterations and improvements I deem it expedient to be made in that department, and the most efficient and economical mode to be adopted by them; also to superintend the new work to be done, the nature of it, and the number of extra men that will be required for the same.

To take soundings, and to report to the Navigation Committee any alterations that may have taken place in the navigation of the Port of London.

No. 26. Reports of Harbour-masters.

I have also to attend to all orders from the Right Honourable the Lord Mayor, the Honourable the Elder Brethren of the Trinity House, and to attend, at Guildhall or elsewhere, upon the Worshipful Thames Navigation and Port of London Committee, when duly summoned.

To preside at the various meetings of the Board of Harbour-masters, and to attend at the office daily for the transaction of all business that may occur to the Harbour service.

(signed) *John Fisher*,
Principal Harbour-master,
Port of London.

Harbour-masters' Office, St. Katharine's,
13 Nov. 1833.

A RETURN of the Nature and Duties performed by Messrs. *Cousens*, *Rowland* and *Mayott*, Harbour-masters of the Port of London.

To direct the entering, mooring, unmooring, moving and removing of all ships and other vessels, steam-boats, lighters and craft coming into, lying or being in the Port of London, as to the time or times and manner of their entrance into, lying in or going out of the same, and their respective berths, stations, positions, loading and discharging therein.

To regulate the vessels lying at the wharfs and quays within the said Port.

The above duties occupy my time daily. During the flood-tides (Sundays not excepted) and on the ebb-tides, I have, in my turn, to superintend the state of the mooring-chains, stones, &c., and pointing out to the Worshipful Thames Navigation and Port of London Committee the various alterations and improvements we deem expedient to be made in that department, and the most efficient and economical mode to be adopted by them; also to superintend the new work to be done, the nature of it, and the number of extra men that will be required for the same.

To take soundings and report to the Navigation Committee any alterations that may have taken place in the navigation of the Port of London.

I have also to attend to all orders from the Right Honourable the Lord Mayor, the Honourable the Elder Brethren of the Trinity House, and to attend, at Guildhall or elsewhere, upon the Worshipful Thames Navigation and Port of London Committee, when duly summoned.

(signed) *William Cousens*, *Charles Rowland*, *William Mayott*, Harbour-masters, Port of London.

Harbour-masters' Office, St. Katharine's,
13 Nov. 1833.

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30 November 1833.

During the greater part of this month the Pools have been crowded by the large arrivals of colliers and coasters. The tiers on the Rotherhithe shore have been well filled with Baltic traders and vessels in the corn and Irish trades, which have prevented us from giving much accommodation to the coal trade in that part of the River.

The navigation through the Pools has been kept open and clear, and no complaints have occurred.

The collier detention flag has been flying nearly the whole of the month.

There has been much blowing weather, but little or no damage has been received by the vesssls in the River.

On the night of the 28th instant Goulding's granary, at Horslydown, took fire, and was burnt to the ground; the brig Planter, and a barge laying alongside the wharf, received considerable damage.

Mr. Marshall has taken up the inner anchor of the Upper East India Dock moorings, shortened the chain, and laid it down 130 feet further out, according to the request of the said Company.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 December 1833.

I beg leave to report that the harbour service during the month has been carried on as usual, and every attention given in keeping open a clear navigation through the Pools, although from the large arrivals of colliers the Harbour-masters have had much difficulty in berthing them.

The collier detention flag has been flying the whole of the month, and constant gales of wind during that time; all the moorings have held on well, and little or no damage has been received by the shipping in the Pools.

The colliers in the Lower Pool have at times brought their anchors home, but they have been immediately removed on the weather moderating.

On the 16th instant I received a letter from the Right Honourable the Lord Mayor, enclosing a communication from a committee of magistrates for Middlesex, requesting permission to place a vessel in the River Thames for the reception of Scotch and Irish paupers, until they could be shipped off to their respective countries. I laid the said letter, with my answer thereto, before your Chairman, which he was pleased to approve of.

(signed) *John Fisher*,
Superintending Harbour-master.

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No. 26.
Reports of Harbour-masters.

31 January 1834.

The River generally has been thin of shipping, owing principally to the long continuance of south-westerly winds, and the closing of the clubs in the northern ports of England.

There has been much blowing weather during the month, but little or no damage has been received by the shipping in the Pools.

The colliers have at times brought their anchors home, but all the fast-tier moorings have held on well.

The church ship has been removed and moored alongside H. M. ship Perseus, off the Tower; and the Trinity ballast-lighters are working about Church Hole, and have deepened the water considerably, so that the proposed tier for 18 sail of vessels may be formed on the first arrival of a large fleet.

Mr. Mitchell has been trying the ground about Cherry Garden, and from the state of it considers it will be necessary to place larger mooring screws for the tier to be formed at that place; it will take a considerable time to procure them, as they must be forwarded from Belfast.

I beg leave to call your Committee's attention to the boats and men employed in the harbour service, and that the same may be put on its former footing, as by experience we find the inefficiency of the present system.

(signed) *John Fisher*,
Superintending Harbour-master.

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28 February 1834.

I beg leave to report that during the month the Pools generally have been well filled with shipping, and damage has occurred at times owing to the heavy fogs.

From the large arrival of colliers the detention flag has been flying the greater part of the month.

The Trinity ballast-lighters have completed the excavation about the place formerly occupied by the church ship, and a tier of light colliers will be formed there on the first arrival of a large fleet.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 March 1834.

The collier detention flag has been flying the greater part of the month.

I have received a written communication from Captain Walton, Principal Dock-master of the London Docks (a copy of which I herewith enclose), requesting one of the tiers off the Hermitage entrance of their docks may be removed, to allow vessels and craft to pass in and out during the repairs of the gates at the Wapping entrance, which request, with the sanction of your chairman, has been complied with.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 April 1834.

The Pools during this month have not been so thronged as the previous one; the arrivals of colliers not being so numerous as during the winter months, there not being more than 142 sail in the Lower Pool at one time.

The Trinity ballast-lighters (according to your Committee's request) have been for some time at work in clearing away the shoal below London Bridge, and two buoys have been placed as marks for the lighters to work by; but great inconvenience occurs from barges and craft passing down through the centre arch, and in consequence thereof the Right Honourable the Lord Mayor has given notice of stopping the same up on Monday next, the 5th May.

Several Trinity lighters have also been at work deepening the water below Union Tier, and considerable quantity of ballast has been raised.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 May 1834.

From the few arrivals during the month the tiers in the Pools have been thin of shipping.

The waterman appointed to look after the barges moored under the centre arch of London Bridge has reported to me that the people employed in clearing away the remains of the starlings of the old bridge are in the habit of discharging the same into the River, between the bridge and the shoal below it, which in my opinion ought not to be allowed.

One of the barges moored under the centre arch of London Bridge was sunk by a barge getting athwart her on the flood tide, but was got up immediately, and another moored in her place, for the requisite protection to the craft at work on the starlings of the old bridge and the ballast lighter clearing away the shoal below it; the latter have, since they have been at work cleared away upwards of 7,000 tons of rubbish.

The Lower King's Moorings at Deptford parted during the early part of the month, but have been repaired, according to the agreement made between your Committee and the Lords

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Commissioners of the Admiralty; the one above likewise requires repair, and I have directed Mr. Marshall to make good the same as soon as possible, as we find them of very essential service for the accommodation of the vessels in the timber trade.

(signed) *John Fisher*,
Superintending Harbour-master.

To the Right Honourable *Charles Farebrother*, Lord Mayor of the City of London, and Conservator of the River Thames and Waters of Medway.

My Lord, 12 June 1834.

In obedience to your Lordship's commands we have made further inquiry respecting the manner in which the stone and rubbish taken from the foundation of the Old London Bridge is disposed of, and we have ascertained that great part thereof continues to be deposited in the River, as we are informed, under the directions of Sir John Rennie.

We have the honour to remain, my Lord,
Your Lordship's faithful servants,
Nathaniel Saunders,
Sub-conservator and Water-bailiff;
John Fisher,
Principal Harbour-master.

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30 June 1834.

The survey of the shoals, as ordered by your Committee, is going on, and will I expect be completed in the course of a fortnight.

I have obtained the sanction of the Elder Brethren of the Trinity House for the extension of the moorings at the Alderman's Upper Tier, by placing the two upper stones higher up, for the further accommodation of steam-vessels.

The Pools during the month have been moderately thin of vessels, but occasional stoppages have occurred from the numerous steam-vessels navigating the River Thames, and towing vessels over the tide to and from the St. Katharine's Docks. The Harbour-masters have been particular in giving directions to check their speed, in order to prevent accidents and damage.

The quantity of ballast raised from the shoal below London Bridge by the Corporation of Trinity House has been up to this day 11,794 tons.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 July 1834.

The arrivals in the Pools have been moderate until the 26th instant, when a large fleet of colliers came up the River, a part of which was detained below Deptford. More foreigners have arrived this month than for the last three years, consisting principally of Norway and East Countrymen.

The survey of the shoals is going on, and will be laid before your Committee at the next monthly meeting.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 August 1834.

From the number of arrivals of colliers, and the strike of the coalheavers and porters, a number of colliers were kept out of the Pools for a few days in the middle part of the month, and a fair navigation has been preserved through them.

The survey of the shoals from Woolwich up to London Bridge has been completed, and the plans will be shortly laid before your Committee.

The Trinity ballast lighters continue at work on the shoal near London Bridge.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 August 1834.

Present—Captain John Fisher, Mr. Charles Rowland, Lieut. William Mayott.

Resolved, That it be represented to the Worshipful Thames Navigation and Port of London Committee, in answer to their communication of the 7th instant, on the memorial of the Star Gravesend Steam-packet Company, requesting an exclusive privilege to the use of the Yarmouth Chain; the Harbour-masters, after maturely considering the same, are unanimously of opinion that no exclusive privilege can be ceded or given to the memorialists, as by an Act of Parliament for the improvement of the Port of London all the mooring chains are directed to be purchased for the use of the public for ever.

The chain in request is situated in a crowded part of the River off the Custom-house, where the

the vessels using the adjacent wharfs and quays have been in the habit of frequenting beyond the memory of any of the Harbour-masters.

The Harbour-masters further beg to state that the vessels now in the occupation of th Yarmouth Chain have contributed to the payment of the tonnage duty, and consequently for the moorings in the River, of which tax the applicants are entirely free, and do not contribute in any way to the expenses of the Port of London.

The Harbour-masters cannot refrain from again representing to your Worshipful Committee the daily danger, damage and destruction caused by allowing the larger class of steam-boats to navigate and lay in the Pools, and more particularly off the Tower and Custom-house.

(signed) *John Fisher,*
Charles Rowland,
William Mayott.

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30 September 1834.

From the occasional numerous arrivals of colliers the collier flag has been obliged to be hoisted at times, in order to keep open a clear passage in the Lower Pool.

From the numerous steam-vessels plying to and from the St. Katharine's Steam Wharf, the inshore passage has been occasionally obstructed; in consequence of which, I have been under the necessity of representing the same to the secretary of the St. Katharine's Dock, since which the complaint has been remedied.

The Trinity ballast-lighters still continue to work on the London Bridge shoal, and a channel of 14 or 15 feet has been made to the northward of it.

(signed) *John Fisher,*
Superintending Harbour-master.

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31 October 1834.

I have to inform you that during the greater part of the month there has been large arrivals of colliers, and numbers have been stopped from coming into the Pool.

From the strong gales during the latter part of this month there has been occasional obstructions in the Lower Pool, by the colliers bringing home their anchors and driving into the navigable channel of the River, but every attention has been given in clearing the navigation and removing any obstruction as soon as the state of the weather should permit.

The Trinity ballast-lighters continue working on the shoal below London Bridge and the arch to the northward of the centre. One has been closed by order of the Right Honourable the Lord Mayor, to protect the barges of Messrs. Jolliffe and Banks; during such stoppage the centre arch will remain open.

I have, according to your Committee's order, given directions for the removal forthwith of the chapel ship off Wapping.

(signed) *John Fisher,*
Superintending Harbour-master.

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27 November 1834.

Present—Captain Fisher, Mr. Cousens, Mr. Rowland.

Resolved, That the following observations be transmitted to the Honourable the Elder Brethren of Trinity House:

1st. Three hundred feet is not actually required for the purpose of navigation, as the larger class of vessels are towed by steam.

2d. It will render useless many of the mooring-chains, and take away too large a space from the coasting trade, who bring up to London the necessary supplies, and add to the expenses of the shipowner by lighterage, risk and delay, and consequently to the public, who are the consumers, as the number of vessels removed from the tiers by the proposed regulation of 300 feet navigation must deliver their cargoes at Limehouse and Deptford.

3d. By removing the vessels out of the tiers in the Pools it will contribute to lessen the depth of water.

4th. Much injury will be sustained by the proprietors of the wharfs and warehouses by keeping a passage of 300 feet, as numbers of vessels must be prevented from coming up to their usual place of delivery, as the Pools have always been considered in the nature of a dock.

5th. It will throw out the larger class of vessels from the coal trade, as from their draught of water they are compelled to moor within the line of the 300 feet.

6th. On the receipt of the following order from the Thames Navigation Committee, dated 10th April 1833, "That the Harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way of not less than 300 feet are scrupulously enforced, and particularly in the Lower Pool; that they do not permit at any time a greater number of ships or vessels being moored at the several tiers than is allowed by the said bye-laws," the Harbour-masters proceeded to carry the same into effect, particularly in the Colliers Pool, when a committee of the coal trade was immediately held, and a representation made to the chairman of the Navigation Committee, when it was agreed, that from

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the expense, inconvenience and delay arising to the coal trade, the same ought not to be enforced; and the Chairman directed that an additional number of vessels be allowed to lay in the collier tiers, and that the 300 feet navigation should not be scrupulously enforced, and which regulation was afterwards confirmed.

Ordered, that the clerk do transmit the following letter, with the above observations, to Jacob Herbert, Esq., secretary to the Trinity House:

Sir,

I am directed by the Harbour-masters of the Port of London to forward you the enclosed observations on the proposed bye-laws, for keeping open a clear and free navigation of 300 feet at low-water through the Pools, as they feel it a duty, from their long experience and practice on the River Thames, to lay the same before the Honourable the Elder Brethren of Trinity House, previous to the Port Regulations again passing into a law.

I am, Sir, your most obedient servant,
Malcolm Dunnett, Junior, Clerk.

To the Harbour-masters of the Port of London.

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29 November 1834.

The navigation through the Pools during the month has been at times not so well as could be wished, owing to the gales of wind and large arrivals of colliers, but there has been sufficient space for vessels to pass up and down without any damage occurring.

The chapel ship has been removed from her moorings off Wapping-ness, and the Trinity ballast-lighters are now at work deepening the water for a berth for one of the large Dundee steam-vessels.

The Trinity lighters still continue at work about the shoal below London Bridge, and have deepened the water considerably to the northward of it, and large quantities of stone have been removed from the top of the same by people employed by the water-bailiff.

The craft employed by Messrs. Jolliffe and Banks discontinued working on the starlings of the Old London Bridge this day.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 December 1834.

From the large arrivals of colliers the collier detention flag has been flying the whole of the month, and during that time we have never had less than 900 sail laying between the Regent's Canal and London Bridge.

The Trinity lighters continue to work about London Bridge, but too low down to be of any service in clearing away the shoal, and I have reported the same to the Trinity House.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 January 1835.

The collier flag has been flying during the whole of the month, and numbers of colliers have been kept out of the Pools until there has been room for them to come up, which has been the means of keeping a fair and sufficiently open navigation.

Many complaints have been made by the people connected with the vessels in the coal trade, on the demurrage and delay by not allowing their vessels to enter the Pools immediately on their arrival.

The navigation has at times not been so wide as I could wish, owing to the strong winds or tides setting the tiers over, and several of the vessels bringing their anchors home; but every exertion has been used, as soon as the wind and tide would permit, in regulating the vessels so as to open the navigation, and upwards of 2,000 sail of vessels have passed through the Pools in safety during this month.

Since the introduction of a large class of vessels so high up the River, frequently towed down by steam over the tide, meeting vessels navigating regularly with the tide, has been the means of creating much confusion in the Pools; but considering the number that navigate the River, it is extraordinary that so little damage occurs.

(signed) *John Fisher*,
Superintending Harbour-master.

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28 February 1835.

During the month a succession of heavy gales has occurred, and at times whole tiers of colliers have been driven from their moorings, which has for a time caused obstruction to the navigation and damage to several vessels; but the Harbour-masters (as soon as the state of the wind and tides would permit) have seen them removed, and preserved a clear transit through the Pools.

The chain-moorings have held on well. The mooring anchor of the outer lower arm at Limehouse Hole tier was upset by a collier hooking it, but was immediately relaid.

I have occasionally attended with Mr. Marshall and inspected the building of the mooring lighter

lighter at Mr. Colson's yard, Deptford, and have to report that she is now in frame, and is built with good sound well-seasoned oak.

From the numerous arrivals of colliers, the detention flag has been flying the whole of the month.

(signed) *John Fisher*,
Superintending Harbour-master.

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5 March 1835.

I HAVE to lay before you a model of proposed jetties for landing and embarking passengers at the Custom House Wharf, which will render that fine river front available to the public service, and Government will derive a considerable revenue from that source.

It must be very evident to your Committee that further accommodation is required for the increasing number of steam-vessels navigating the River Thames, there being at present upwards of 100, which will be considerably increased during the summer.

(signed) *John Fisher*,
Superintending Harbour-master.

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31 March 1835.

DURING the early part of the month there has been much blowing weather, which has consequently at times altered the regular arrangement of the tiers.

The collier flag has been flying the whole of the month, and at times upwards of 200 sail have been detained at Greenwich and Blackwall for want of accommodation in the Pools.

I have waited on the Elder Brethren of the Trinity House, and have obtained their permission for the St. Katharine's Dock Company adding additional security to the mooring of the principal buoy off their entrance, by placing a one-fluke mooring anchor and about 10 fathom of chain to the westward thereof, to be sunk about six feet below the bed of the River, and afterwards levelled, so as to prevent any impediment to the navigation, and shifting the lower buoy of the Gun Shoal at Blackwall from 15 to 16 feet nearer the shore.

The West India Dock Company have a steam-ballast machine at work, clearing away the Gun Shoal, and the Trinity ballast-lighters continue at work on the shoal below London Bridge.

I beg leave to forward the soundings taken on the starlings of the Old London Bridge.

The harbour service has been performed as heretofore, and every attention has been given in preserving a clear and open navigation, and giving every necessary accommodation to the trade of the Port of London.

On the 1st instant the Harlequin steam-vessel, laying off the Tower, took fire, and was scuttled to prevent damage to the shipping around her. She was weighed on the 13th, and taken down to Deptford.

The Trinity lighters continue at work on the shoal near London Bridge, and I am in confident hopes shortly to report a clear navigation downwards through the centre arch.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 April 1835.

SINCE my last Report the harbour service has been conducted as heretofore, and the navigation kept well open; but large numbers of colliers have been detained the whole month below for want of accommodation in the Pools.

The Trinity ballast-lighters continue working on the shoal near London Bridge, and in the neighbourhood of the wharfs between the bridge and Billingsgate, which has deepened the water considerably. The buoys for pointing out the shoal have been removed higher up, at the request of the Trinity House.

The Elder Brethren of the Trinity House have given their sanction for mooring the Eel-chain downwards, and for placing moorings for steam-vessels above.

From the large number of steam-vessels navigating at a point so high up the River, I think it necessary for the trade of the Port that the large class of steam-vessels should be prevented from coming so high up the Pools, as they frequently cause obstruction to vessels navigating regularly with the tide, as well as preventing the transit in and out of the wharfs.

Mr. Marshall continues at work on the King's moorings at Deptford, but from their defective state, it is impossible to say when they will be finished.

(signed) *John Fisher*,
Superintending Harbour-master.

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30 May 1835.

THE Pools have generally been full during the month, particularly that part of the River between St. Katharine's and London Bridge, and from the number of Newcastle and Sunderland traders resorting to the Lower Tiers, it will be necessary to berth some of them as low down as Church Hole, in order to keep open a clear navigation for the numerous steam-vessels passing up and down from the Upper Wharfs.

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Mr. Marshall and his people continue at work on the King's moorings at Deptford, and I am in hopes of having them completed in about a fortnight.

The Trinity lighters continue deepening the water about London Bridge, and the shoal will be cleared away by the latter part of the summer, provided the ballast-lighters continue working on it.

(signed) *John Fisher,*
Superintending Harbour-master.

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2 June 1835.

Present—Captain John Fisher, Mr. Charles Rowland, Lieutenant William Mayott.

Resolved, That it be represented to the Worshipful Thames Navigation and Port of London Committee, in consequence of the numerous complaints made by merchants and ship-owners of the want of accommodation for vessels in the Pools, and the insufficient space for the trade of the Port of London, and bearing in mind the vast increase in steam navigation, and the prospect of a continued increase, and the foreign steam-vessels carrying His Majesty's post-office mails being without proper accommodation, we feel it our imperative duty to represent the same to your Worshipful Committee, and earnestly to suggest an application to the Lords Commissioners of the Admiralty for the removal of His Majesty's ship Perseus, lately employed as a receiving vessel, and the Brazen "Episcopal chapel ship." The former might be removed to Deptford, and replaced again in 48 hours, if required in that situation for His Majesty's service, and the latter may be placed below Union Tier, which will be for sailors a central situation between both the Upper and Lower Pools, first having the consent of the London Dock Company, as it is within the limits allowed them by Act of Parliament.

The accommodation thus contemplated will enable the Harbour-masters to berth about 25 sail of coasting vessels, or the whole of the steam-vessels carrying the Government mails.

(signed) *John Fisher,*
Charles Rowland,
William Mayott.

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30 June 1835.

The navigation during the month has been open and clear, and, as usual, large numbers of colliers have been kept out of the Pools.

The regulations made by the Lord Mayor respecting steam-vessels passing through the Pools have been attended with some effect, and in very few instances have I had cause of complaint.

The Eel-chain has been moored down, and the eel-vessels have taken berths inside the tier, which will render it easy and safe for the people going off to them to purchase eels.

I have placed a board with a notice that no vessels are to take berths inside them, and have written to the directors of the steam companies to give directions to the masters of steam-vessels in their employ to cause the above order to be attended to.

I have likewise given directions to all steam-vessels not to be placed in the passage in and out of Billingsgate Dock.

I have received three letters from Sir John Hall, Secretary to the St. Katharine Dock Company, copies of which I beg leave to forward to your Committee, and request your instructions thereon.

An anchor being required to complete the Lower King's Moorings at Deptford, I have demanded one from the Captain Superintendent of the Dock-yard, who has received directions from the Lords of the Admiralty to supply one; I therefore hope to have the above moorings completed in about a week.

The Trinity ballast-lighters continue to work at times on the shoal near the bridge; but the demand for ballast has been so limited this month that very little progress has been made.

(signed) *John Fisher,*
Superintending Harbour-master.

St. Katharine's Dock,
24 June 1835.

My dear Sir,

You must be so kind as to extend some of your aid to us in respect to the steamers frequenting our wharf. So long as there was accommodation for other boats at the moorings specially assigned by the Port Committee for the placing of those that ply at our wharf, we have never objected, nor do we to any other steamers being permitted to lie there so long as there is room for the boats proceeding to and from the wharf; but it is really too bad for those moorings to be occupied by the steamers frequenting London Bridge Wharf, to the exclusion of those plying at St. Katharine's, and for which they were specially assigned. You must have witnessed the state in which we were this morning, jammed in on all sides, and indeed not an inshore passage even for a boat, and this entirely because the London Bridge boats make fast to the moorings. The Red Rover last night and the City of Canterbury

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terbury were compelled to remain alongside the wharf, because there was no room for them at the buoys, and the Dover and Ipswich boats were with the greatest difficulty got to the wharf this morning to take in their passengers. I am sure you will at once admit the justice of my appeal to you, and I hope you will take such steps as will secure to our steam-boats the reasonable accommodation we ask, which can alone be secured to them by requiring the boats frequenting London Bridge Wharf to seek accommodation up above, and not impede our business.

I am, my dear Sir, yours faithfully,
(signed) *J. Hall.*

Captain Fisher, R.N.

St. Katharine's Docks,
24 June 1835.

My dear Sir,

With reference to the request made to you this morning, I have since caused a return to be made to me of the steamers lying at the moorings this morning that do not frequent our wharf.

Royal Sovereign - - Ramsgate boat Fame - - - Margate ditto Dart - - - - Ramsgate ditto	London Bridge Wharf.
Venus - - - - - - -	Ditto, except upon excursions from St. Katharine's.
Swiftsure - - - - - -	Nicholson's and London Bridge.
Hawk - - - - - - -	

Besides the Magnet and City of London, Ramsgate and Margate boats, which also come down and moor there, after landing their passengers at London Bridge Wharf.

I am, my dear Sir, yours faithfully,
(signed) *J. Hall.*

Captain Fisher, R.N.

Dear Sir,

St. Katharine's Dock, 29 June 1835.

Complaints have been made of the India hoy, which is moored in the stream off Rotherhithe Church, and I have been instructed by the Board to write two lines to the Port Committee to request it may be ordered to be removed.

We expect up this tide the

John Barry - - - - - -	521 tons.
Bardaster - - - - - -	440 ditto.
Clyde - - - - - -	400 ditto.
Rhoda - - - - - -	220 ditto,

St. James, 650 tons; Sebor, new line ships, arrived off the Wight yesterday.

Yours truly,
(signed) *J. Hall.*

Captain Fisher, R.N.

Harbour-masters' Office, St. Katharine's,
7 July 1835.

To the Worshipful Thames Navigation and Port of London Committee.

Gentlemen,

We, the undersigned, Harbour-masters of the Port of London, having seen a copy of a memorial and plan of the St. Katharine Dock Company, signed by their secretary, which was presented to the Court of Common Council on the 2d day of July last, the said memorial having been referred by the Court to your Committee, we feel it our duty to notice the same, and to report our opinions thereon, with reference to the plan for mooring and placing vessels in the Lower Pool. We first proceeded to examine the correctness of the following Statement:

STATEMENT of the Number of Ships intended to be moored in Tiers on the North Shore in the *Lower Pool*, according to the proposed Bye-laws, showing the space each Tier would occupy, 25 Feet being the computed space in width required practically for each Ship, which includes an allowance for Fenders, shifting of Ships, and Moorings, Casualties, &c., and providing for one Craft alongside the outermost Ship; showing also the Width of the River at Low-water Mark, and the Width of the Channel that would remain for the purpose of Navigation.

TIERS.	Number of Ships proposed.	Width of the average occupation of each Tier, about	Average Width of Inshore Channel North Side, about	Total Width from Low-water Mark, North Shore, to outermost Ship.	Width of River between Low-water Mark about	Width of remaining Waterway or Navigation Channel, about	Encroachment on the 300 Feet, width of Channel established by Law, about
		Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
le Stairs - -	22	550	100	650	860	210	90
ll Wharf - -	23	575	100	675	875	150	150
one Stairs - -	20	500	100	600	720	150	150
tcliff Cross, Upper	16	400	100	500	700	200	100
tcliff Cross, Lower	15	375	100	475	665	220	80
Total No. of Ships	96						

It will be seen by the following corrected copy of the above, the errors and inaccuracies of the same.

TIERS.	Number of Ships.	Width of the Tier.	Inshore Channel.	Total Width from Low-water Mark to the outside of the Tier.	Width of the River.	Navigation.	Average Beam.
		Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
Cole Stairs - -	22	550	100	650	860	210	25
Bell Wharf - -	23	575	100	660	810	150	25
Stone Stairs - -	20	500	100	600	750	150	25
Ratcliff Cross, Upper	16	400	100	500	700	200	25
Ratcliff Cross, Lower	15	375	100	475	690	215	25
Total No. of Ships	96						

The Harbour-masters have no hesitation in filling up a similar formula of forming the tiers, according to the proposed bye-laws, by measurement and practical experience, and they have no doubt but the same opinion on the subject is entertained by the Honourable the Elder Brethren of the Trinity House, and all uninterested parties.

The HARBOUR-MASTERS' STATEMENT, in form as the above.

TIERS.	Number of Ships for each Tier.	Average Breadth Beam.	Width of the Tier.	Total Width from Low-water Mark to the outside of the Tier.	Width of the River from Low-water Mark to Low-water Mark.	Inshore Channel.	Navigation.
		Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
Cole Stairs - -	22	22	484	524	860	40	336
Bell Wharf - -	23	22	506	546	810	40	264
Stone Stairs - -	20	22	440	480	750	40	270
Ratcliff Cross, Upper	16	22	352	390	700	40	310
Ratcliff Cross, Lower	15	22	330	370	690	40	320
Total No. of Ships	96						

On the St. Katharine's Dock plan for placing and removing the tiers of colliers from the north side of the Pool to the south, we beg leave to say the Pool will not accommodate afloat a sufficient number of colliers for the supply of the Metropolis with coals.

The passage through the Pool will be on a lee-shore, from the prevalence of the S.W. wind, and the course of the tide setting on the same.

The buoys necessary for transporting vessels to and from the London Docks and the Regent's Canal would be directly in the centre of the proposed navigation and in the track of vessels passing up and down the River, and the removal of these buoys would render the entrances to those docks difficult and dangerous; whereas by the present system vessels are enabled to keep the weather-shore on board, and consequently pass through the Pools with greater facility.

It will be seen by the St. Katharine's Dock plan, that in order to keep 300 feet of navigation, "that vessels are to be moored so near the shore that they must lay upon their beam ends at low-water, strain themselves, and it will also prevent them from working and delivering their coals."

With respect to the necessity of preserving 300 feet navigation at all times, it is impracticable, and not actually necessary; and notwithstanding the opinion of 57 pilots, (who certified to that effect) and those dock-masters and others connected with steam-vessels who again certified to the same, we beg to forward to your Committee a representation upon the subject of the 300 feet, signed by 160 masters of vessels in the coal and coasting trade, constantly trading to the Port of London, and a like representation, signed by 128 pilots and watermen, daily navigating the Pools; men who are capable of judging, and fully competent to give a disinterested opinion on the subject.

Those pilots whose general business is to bring up vessels to the docks will naturally lend their names to their employers, and if they require more space than they have hitherto had, it points out the necessity of amending the Act of Parliament, that other competent persons may be qualified as pilots for the River Thames.

With respect to buoying off the channel according to the plan of the St. Katharine's Dock Company, the Harbour-masters are of opinion that placing buoys in the River Thames for

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for marking off the passage would be a great obstruction to the navigation and a constant source of damage and expense, it being notorious that all buoys in the stream are a nuisance.

In conclusion, the Harbour-masters have again to repeat to your Committee that every accommodation has been given to the St. Katharine's Dock Company consistent with the interests of the coal, coasting and other trades resorting to the Port of London.

We are, Gentlemen, your obedient, humble servants.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott,
} Harbour-masters, &c. &c.

Harbour-masters' Office, St. Katharine's,
27 July 1835.

Gentlemen,

His Majesty will go down from Whitehall to Greenwich, by water, on Saturday next, the 1st day of August, at 11 o'clock in the forenoon.

I am directed by the Right Honourable the Lord Mayor to request you will give directions to the masters of steam-vessels in your employ not to pass the procession which will attend His Majesty, but to keep ahead or astern of the same, and to use every precaution and care in regulating the speed of their vessels, in order to prevent obstruction and danger.

I am, Gentlemen, your obedient servant,

(signed) *John Fisher,*
Principal Harbour-master, Port of London.

A copy of the above letter was addressed to the Directors of the General Steam Navigation Company, Greenwich Steam-packet Company, Old Margate Steam-packet Company, New Margate Steam-packet Company, Star Gravesend Steam-packet Company, Gravesend and Milton Steam-packet Company, Woolwich Steam-packet Company, Commercial Steam-packet Company, Tam O'Shanter Towing-vessels, Herne Bay Steam-boat Company, Thames Steam Towing Company, Jarrow and Nelson Steam Towing Company, and Monarch Steam Towing Company.

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31 July, 1835.

The transit of vessels through the Pools has been without the least difficulty or danger.

The colliers arriving during the month have been detained below until sold, but the arrivals have not been so numerous as in the last month.

The lower buoy off the entrance of the Surrey Canal has been removed, at the request of Captain Smith, the dock-master, it being found an obstruction to the transit of vessels in and out of the canal.

The mooring-chain lighter has been completed by Mr. Colson, and delivered to Mr. Marshall. Both Mr. Marshall and myself are quite satisfied of her being a well-built vessel, and built according to the contract.

(signed) *John Fisher,*
Superintending Harbour-master.

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31 August 1835.

The arrivals of coasters and colliers during the present month has not been so numerous as in the month of July, but numbers of colliers have been detained from coming into the Pools in order to keep open a clear navigation.

The Trinity ballast-lighters continue to work slowly on the London Bridge shoal. The men employed in them are constantly complaining of the difficulty of clearing it away, and of the losses they sustain by breaking the setts and ballast bags. A copy of the expenses incurred I beg leave to forward, and strongly recommend some remuneration may be granted, as an encouragement for completing the work.

I beg leave to refer your Committee to my Report of June last, wherein it was stated that Sir John Hall had demanded an exclusive right of the public steam moorings at St. Katharine's, since which, I have been informed that he has written to the Old Margate Steam Company, requesting they will give directions to the commanders of their vessels, now removed to the London Bridge Wharf, that they do not use those moorings; and I further understand, that on the application for the City of Aberdeen steam-vessel to run from the St. Katharine Dock Wharf, 6*l.* a voyage was demanded for laying at the city moorings. Proofs of the above statement I beg leave to forward, and request your Committee's directions thereon.

(signed) *John Fisher,*
Superintending Harbour-master.

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5 September 1835.

Present—Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieutenant William Mayott.

Resolved,—That it be represented to the Worshipful Thames Navigation and Port of London Committee, in answer to their order of the 3d instant, for a statement of the number

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Harbour-masters.

of colliers that can be accommodated at the respective tiers, after allowing a clear passage of 300 feet, (taking 50 feet as the average inshore channel) the number will be 141 moored at their own anchors in the Lower Pool.

In answer to their order, of the same date, for the less number of vessels that can be accommodated in the River within the Pools, maintaining the 300 feet, is 187.

The Harbour-masters beg leave to state to the Committee, that to preserve a navigation through the Pools under the present system, that a great number of vessels are accommodated upon sufferance between the different tiers, much to the inconvenience of passengers crossing the water, of the vessels discharging their cargoes laying at the regular tiers, and those bound to and from the different wharfs situated abreast of the tiers; and further, that where large fleets arrive, a much greater number of vessels and craft are accommodated between the tiers than at present, and the reduction of the tiers to preserve the 300 feet navigation would preclude a great many of those vessels from any accommodation in the Pools whatever.

The Harbour-masters beg to state, that the obstructions which are generally complained of do not arise from the crowded state of the tiers, but from the vessels necessarily navigating the River with and against the tide; and so long as the trade of the Port of London is allowed to discharge their cargoes in the stream of the River Thames, so long will these obstructions take place, even should the navigable passage through the Pools be extended above 300 feet.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott.

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30 September 1835.

With the exception of colliers, the Pools have been thin of vessels, and the colliers that have not been sold have been detained below, and have been permitted up into the Pool at soon as notice to that effect has been sent from the Coal Market.

Owing to the blowing weather in the latter part of the month, several of the collier tiers have parted at times, which has narrowed the navigation, but no time has been lost in removing the vessels and opening it.

The Trinity ballast-lighters continue to work on the shoal below London Bridge, and have up to the present time cleared away upwards of 300,000 tons of ballast.

(signed) *John Fisher,*
Superintending Harbour-master.

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5 October 1835.

Present—Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieut. William Mayott.

A letter from Sir John Hall, Secretary to the St. Katharine Dock Company, complaining of the state of the Pool on the 22d ultimo, when the United States ship "Torronto" came up, and also the state of the Pool on the following day; likewise a letter from Mr. Joseph Voy, pilot of the said vessel, upon the same subject, were laid before this meeting, and read.

The Harbour-masters having made inquiries relative to such complaints,

Resolved, that it be reported to the Worshipful Thames Navigation and Port of London Committee, that in consequence of Mr. Voy having put the "Torronto" athwart hawse a collier brig laying in the Bight at Blackwall, the said brig being completely out of the navigation, and having let go her anchor, and hooked one of the mooring-chains, which caused considerable delay, and prevented the pilot from getting the ship into the Pool until near the top of high water, when a number of vessels were getting away.

On the same day six sail of West Indiamen went into the West India Docks without any obstruction, one large ship into the London Docks, and a considerable number of vessels came into the Pool without obstruction or complaint.

The Harbour-masters are of opinion that had Mr. Voy not proceeded higher up than Deptford with the ship after the delay at Blackwall, it would have been the most prudent plan for the interests of his employers and safety of the ship, as he must have expected, so late in the tide, to have met vessels bound out of the Pools, and the great risk of taking so large a ship up to the St. Katharine's Docks after high water.

On reference to the number of vessels complained of laying in the tiers, the Harbour-masters beg to state they are exaggerated and incorrect, inasmuch there has not been on the north side, between the Shadwell entrance of the London Docks and the Regent's Canal, for several months, any more than five tiers, and that Ratcliff Cross Upper Tier did not exceed 18 sail, and only nine sail were laying at the Lower Ratcliff Cross Tier.

In respect to the tiers on the south side, Mill Hole, there were only three tier of colliers moored at their own anchors, and all the ships that can with safety be laid between the Surrey Canal moorings and Church Hole moorings, for the reasons which have been repeatedly given to the Committee.

In reference to the statement made by the St. Katharine's Dock Company of the means of convenient accommodation for shipping, the Harbour-masters refrain from making any observations thereon, as the bye-laws are under their consideration.

In

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In conclusion, the Harbour-masters beg to appeal to the members of the Worshipful Sub-navigation Committee as to their opinion on the state of the Pool on the day complained of, when on their way to Bow Creek. Should further evidence be required, the Harbour-masters are prepared to substantiate their statement.

The Board further considered the plan for mooring colliers in the Lower Pool according to the proposed bye-laws.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott.

On Tuesday the 22d September 1835, the Mariner, of 449 tons, got under weigh from the Commercial Dock buoy for the Surrey Canal; while she was driving through the Collier Pool, or jambing the tide, observed the American ship "Torronto" coming up by the steam, with mizen-top sail set: finding she could not pass, the Mariner let go her anchor, and swinging tight to her cable, took the Fenwick's cat-head away, blowing strong at the time from the southward, the tiers in the Pool laying straight and well fore and aft.

(signed) *John Wickner,*
Barque Mariner, Surrey Canal.

8 October 1835.

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5 November 1835.

In the absence of Captain Fisher, I have to report to your Worshipful Committee, that during the last month the Harbour-masters have endeavoured to keep as large a space as possible for the purposes of navigation off Globe Stairs and Pelican Stairs, in the Lower Pool, and Hermitage Stairs in the Upper, but they have not been able to give more than the space of about 200 feet in either of the above stations, and not so much even as that between St. Katharine's Stairs and London Bridge, arising from the increased number of steam-boats and the quantity of accommodation required by the vessels in the home trade to discharge their cargoes there. Indeed, so great was the throng, that the Harbour-masters were obliged to stop several down in the Lower Pool; and the difficulty there was increased by the London Dock Directors having determined that no collier should be allowed to lay at the buoys off Shadwell, and the dock-master at that entrance, on the 9th ultimo, ordered two away, after they had been sent there by the Harbour-master on duty. There are now upwards of 100 colliers sold, detained and waiting for weighers.

For Captain *Fisher,*
(signed) *William Cousens.*

At a Bye-meeting of Harbour-masters, held at the Office, St. Katharine's, this 16th day of November 1835,

Present,—Captain John Fisher, Mr. William Cousens, Mr. Charles Rowland, Lieutenant William Mayott,

Resolved, That it be represented to the Worshipful Thames Navigation and Port of London Committee that the attention of the Board has been drawn to a number of paragraphs and printed statements in some of the public journals, tending to bring into contempt the regulations of your Worshipful Committee, and to thwart the Harbour-masters in the independent discharge of their duties on the River, which statements are not founded in fact or borne out by any evidence yet brought under the notice of the Committee during the many investigations.

The Harbour-masters beg to point out to your Committee that the trade of the Port of London in 1795 amounted to about 11,000 vessels; that the same has now increased to above 25,000, out of which nearly 4,000 go into the different docks, leaving at least 21,000 sail of vessels to be accommodated to discharge their cargoes at wharfs, or in the stream of the River Thames, being upwards of 10,000 sail of vessels more than before the opening of any docks whatever. The space allotted to them between London Bridge and Limehouse has been reduced by near 5,000 feet frontage, granted to the dock entrances for a transit. This great increase of trade, combining so many different interests, places the Harbour-masters in a gap between each party, consequently every complaint is attributed to the want of attention on the part of the Harbour-masters.

The anxiety of every shipowner and merchant to bring his vessel or merchandize as near to the place of delivery as possible, claiming the privilege of so doing to be an immemorial right, while another party, the St. Katharine Dock Company, are anxious to drive the trade from their ancient berths, in order to obtain a passage of 300 feet through the Pools to the establishment.

In 1829 the bye-laws provided for a passage through the Pools of not less than 300 feet. This regulation was made without the concurrence of the Harbour-masters, they well knowing the injurious effect such a regulation would produce to the trade of the Port and property on the banks of the River in the Pools. However, on the 12th April 1833, the following order was sent to the Harbour-masters:

"Thames Navigation and Port of London Committee.

"Resolved and ordered, That the Harbour-masters do see that the provisions of the bye-laws for keeping open a free and unobstructed passage-way of not less than 300 feet are scrupulously enforced, and particularly in the Lower Pool, that they do not permit at any

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time a greater number of ships or vessels being moored at the several tiers than is allowed by the said bye-laws.

"Woodthorpe."

The experiment was tried in the Collier Pool, the Harbour-masters with a line to measure 300 feet, and at the low-water the distance was determined; the vessels within the line were ordered to move, according to their size and draft of water, to other berths, some to Limehouse, some to Deptford. The effect of the order was apparent, that the space of the deep water (where the large colliers were laying) would exclude from the coal trade all vessels drawing above 15 feet water, as there are no other berths where vessels drawing 16 to 18 feet water can lay afloat in the Pool without encroaching upon the space of 300 feet.

The order was deemed to be harsh and unnecessary; but the Port Committee, in their resolution to the Harbour-masters, ordered the "300 feet to be scrupulously attended to, particularly in the Lower Pool."

A deputation from the coal trade and coal shipowners waited upon Edward Tickner, Esq., then Chairman of the Port of London and Navigation Committee, who appointed a meeting at Guildhall, at which the trade stated their grievances, and the danger, delay and expense occasioned by this regulation. They therefore obtained a promise that the order should not be scrupulously attended to; and the following regulation was then given by Mr. Tickner to the Harbour-masters for their observance, and which was afterwards confirmed by the Grand Committee, and the same has ever since been acted upon, and no reasonable ground of complaint has been made by this regulation of the tiers

Copy of the Regulation made by Mr. Tickner in the presence of Captain Fisher, Mr. Cousens, and the Deputation of the Coal Trade.

Hanover Hole	18
Mill Hole, Upper	20
Mill Hole, Lower	20
Cole Stairs	22
Bell Wharf Lower Tier	23
Stone Stairs	20
Ratcliff Cross Upper Tier	16
Ratcliff Cross Lower Tier	15
Tiers on south side above Redriff Church	12
Stragglers below Ratcliff Cross	6
Total	172

The number of vessels required by the coal trade, according to the letter of Mr. Barchard, as chairman of the committee of the coal trade, dated 28 March 1833, was 228 vessels.

The late evidence of Mr. Barchard and Mr. Gillespy, two of the most intelligent and influential men in all the operations of the coal trade, is as follows:—

150 For 150 weighers employed from the coal-meter's office.
5 Fifteen ships on the average work without a meter; 10 of them in the Regent's Canal, and the remainder five in the River.
5 Average number remaining in the Pool being sold in part. (This number appears to be underrated, but it is the evidence of Mr. Gillespy.)
25 worked out each day and waiting for ballast, &c.
25 fresh ships to be ready for work. (The list sent from the coal-market to the Harbour-master's-office at Greenwich was 50.)
5 to apply for baulked meters.

215 Total.

Out of this number may be deducted (according to Mr. Gillespy) 20 sail; that is, there are usually 15 sail worked off the Tower of London, and five sail metered for the country; but on the other hand, a further addition may be made by the "considerable number of ships" worked by their own weighers, having nothing to do with the coal-market weighers' regulations, and therefore they do not come within the cognizance of the coal committee. Also vessels in distress are necessarily permitted to the Pool.

The Harbour-masters are desirous of pointing out to the Committee, that although their order of the 12th April 1833 more particularly applied to the navigable passage through the Pools of 300 feet, yet it is provided in the same bye-laws, that there shall be allowed 250 sail of colliers up at one time. Had the Harbour-masters carried into effect that part of the laws, the Pools would have been completely obstructed.

The effect of preserving 300 feet space in the Pools is to detain vessels below, thus tending to obstruct the navigation and the entrances into the East and West India Docks, as it frequently occurs that 200 sail of vessels are detained by the Harbour-masters on the lower station from coming up to their destination in the Pool, and which is a matter of constant complaint from the dock companies.

The space agreed upon between the Thames Navigation Committee and the Elder Brethren of the Trinity House, for preserving a passage of 250 feet, has considerably increased the navigation through the Pools, and given every necessary accommodation and facility to the trade of the Port; whereas, on the other hand, the 300 feet would destroy the berths for the delivery of the cargoes

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cargoes of 187 sail of vessels; therefore the report that the Committee had recommended a reduction in the width of the present navigation is unfounded, but, on the contrary, the navigation is considerably increased to what it has been for many years past, as it appears in evidence that the passage through the Pools has been better preserved within the last four or five years than at any former period.

The only evidence on the subject of 300 feet beyond the petitions and petitioners, through Sir John Hall, is that it is desirable to have not only 300 feet, but 400 feet if possible; and it appears that such cannot be granted to the St. Katharine Dock Company without committing a serious injury to many other parties equally interested, and having a claim on the accommodation in the River Thames.

The plan lately proposed by the St. Katharine Dock Company for shifting the tiers of colliers from the north side to the south side of the River would evidently have operated to obstruct and virtually to annihilate the entrances at Shadwell to the London Docks, Surrey Canal, and Regent's Canal, which plan was proved to be so absurd and impracticable that it was withdrawn by its authors.

When any obstruction occurs in the navigation it arises from the circumstance of steam-boats, tugs and large vessels towed by steam having the power to navigate in a rapid manner, both with and against tide, than those that are of necessity compelled to lay athwart the tide, and whether there was a passage of 250 or 400 feet, the same description of obstruction would arise; but these obstructions now complained of were in existence long before the project of the St. Katharine's Dock was in agitation, and of which the proprietors were well informed, by the Parliamentary and other investigations, before they advanced their money on the speculation, and clearly with this position before their eyes, that unless the different branches of trade were removed, or not allowed to discharge their cargoes in the stream of the River, the passage of large ships to their docks would be through a narrow channel, and consequently difficult and dangerous, not only to the ships themselves, but also to the smaller vessels lying in the Port. And it is astonishing to every practical man that so little damage occurs; the principal damage that now takes place is not in the Pool, but out of the jurisdiction of the Harbour-masters.

It is both unfair and unjust to attribute the accidents which occur by steam-vessels on the Thames to the Harbour-masters, as they evidently take place through the want of legislative regulations. The Harbour-masters are of opinion that steam-vessels of a certain class or tonnage should not be permitted higher up the River than Deptford, and none should be permitted to navigate the Pools after dark. The subject has been frequently represented by this Board.

With reference to the average width allowed for the occupation of a collier in a tier, her barge for unloading and other casualties, our opinion is confirmed by frequent measurements, that 22 feet is the extreme space to be allotted. And we are further borne out by the measurements and evidence given by the London Dock Company and the coal trade before the Committee.

The petitions that were presented against the necessity of 300 feet navigation from the masters of vessels, pilots and watermen (all practical men), were free and independently signed in three days.

The Harbour-masters are aware that had they adopted the mode or practised the trickery that was used to obtain the 5,700 signatures to the St. Katharine's Dock petition, they might have produced a petition of any required length.

In conclusion, they are of opinion that the other points in the different statements are so garbled and pointedly incorrect, as not to require any further remarks. The Harbour-masters feel that they have always acted with fairness and impartiality, and have endeavoured to give satisfaction and facility to all trades connected with the Port of London, by keeping open as clear a navigation as circumstances will allow.

The Harbour-masters therefore throw themselves upon the protection of your Worshipful Committee, to support them in the execution of their conflicting and arduous duties.

(signed) *John Fisher,*
W. Cousens,
Charles Rowland,
William Mayott,
Harbour-masters of the Port of London.

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30 November 1835.

THERE has been much blowing weather during the month. In the night between the 20th and 21st, the chains of the outside vessels at Prince's Tier parted from the moorings, and drove down athwart the Trinity Tier, which from the immense strain hauled the outer stone of the latter tier out of the ground, and both tiers drove into the centre of the River, which caused obstruction to the navigation for about 2 ½ hours. No time was lost in getting the vessels removed and placed into tiers again. Mr. Marshall hove up the stone immediately, and it is now relaid in its former situation.

The Pools have been greatly crowded with vessels; at one time 1,043 sail laid between Limehouse and London Bridge, and it was with the greatest difficulty a clear navigation could be preserved through the Pools.

The collier flag has been flying during the whole of the month, and large numbers have been detained below, which has caused complaints from the docks situated below the Pools, from the number of vessels laying off their dock entrances.

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The Trinity lighters have nearly worked away the shoal below London Bridge, and we have from 11 to 15 feet water at that place. The remains of the starlings of the old bridge continue to be dangerous to craft; the depth of water on them (at low water) is from 2 ½ to three feet.

(signed) *John Fisher,*
Superintending Harbour-master.

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31 December 1835.

I HAVE to report that during the month the Pools have been usually crowded with vessels, and owing to the foggy weather the Harbour-masters have had considerable difficulty in finding berths for the trade, and keeping open a clear navigation. At one time nearly 300 sail of colliers were detained between Woolwich and Limehouse, besides considerable numbers in the lower part of the River. I herewith transmit for your information a statement, showing the numbers that have been detained on each respective day during this year, and also the various days that the collier detention flag has been flying for the last 12 months.

On the 19th instant, in consequence of a large arrival of vessels (the winds easterly), I thought it necessary to detain the ship Abberton, bound down over the tide from the St. Katharine's Docks, and towed by steamers. My reason for so doing was, she would have stopped the upward-bound trade, and have caused great confusion and damage; the pilot coincided with me on her detention. All the tiers in the Pools laid well at that time, and not one vessel bound up got foul of them.

On the evening of the 20th the schooner Atlas, laying at Davis's wharf, Horslydown, caught fire, but by the exertions of the firemen it was put out without much damage.

During the dense fog on the 25th, some colliers laying off Greenwich got foul of each other, and swinging round with the tide got their anchors and chain cables so entangled, that I directed Mr. Marshall to take the mooring lighter down and assist in clearing them, in order to keep open the navigation.

The Trinity lighters still continue to work in the shoal water below London Bridge.

The steam-engine has been moored above bridge, agreeably to your Committee's instructions, and is now at work.

The duty on the River has been performed as usual, and every attention has been given to keep an open navigation.

(signed) *John Fisher,*
Superintending Harbour-master.

(signed) *John Fisher,*
William Cousens,
Charles Rowland,
William Mayott,
Harbour-masters, Port of London.

Harbour-masters' Office, St. Katharine's,
2 March 1836.

A STATEMENT showing the Number of Days the Collier Detention Flag has been Flying at *Greenwich*, and the Number of Colliers that have been detained by the Harbour-masters from entering the Pools on each respective day during the Year 1835.

January.		No. of Colliers	February.		No. of Colliers	March.		No. of Colliers	April.		No. of Colliers	May.		No. of Colliers	June.		No. of Colliers
1	Flag up	113	1	Flag up	95	1	Flag up	40	1	Flag up	60	1	Flag up	80	1	Flag up	120
2	—	165	2	—	70	2	—	90	2	—	12	2	—	70	2	—	140
3	—	124	3	—	60	3	—	—	3	—	80	3	—	70	3	—	165
4	—	135	4	—	90	4	—	70	4	—	65	4	—	70	4	—	130
5	—	150	5	—	80	5	—	60	5	—	70	5	—	50	5	—	140
6	—	150	6	—	70	6	—	46	6	—	80	6	—	20	6	—	120
7	—	fog	7	—	55	7	—	60	7	—	79	7	—	45	7	—	125
8	—	—	8	—	63	8	—	70	8	—	83	8	—	29	8	—	100
9	—	125	9	—	60	9	—	60	9	—	80	9	—	50	9	—	100
10	—	100	10	—	60	10	—	60	10	—	60	10	—	60	10	—	—
11	—	80	11	—	80	11	—	40	11	—	100	11	—	50	11	—	120
12	—	80	12	—	95	12	—	85	12	—	100	12	—	60	12	—	123
13	—	76	13	—	90	13	—	90	13	—	85	13	—	55	13	down	—
14	—	100	14	—	70	14	—	72	14	—	90	14	—	100	14	—	110
15	—	80	15	—	60	15	—	50	15	—	60	15	—	60	15	up	135
16	—	100	16	—	90	16	—	60	16	—	80	16	—	50	16	—	95
17	—	60	17	—	70	17	—	80	17	—	100	17	—	60	17	—	100
18	—	60	18	—	87	18	—	100	18	—	180	18	—	90	18	—	120
19	—	96	19	—	98	19	—	180	19	—	120	19	—	80	19	—	103
20	—	100	20	—	70	20	—	135	20	—	140	20	—	70	20	—	100
21	—	70	21	—	80	21	—	120	21	—	100	21	—	70	21	—	100
22	—	80	22	—	49	22	—	85	22	—	53	22	—	80	22	—	115
23	—	—	23	—	60	23	—	145	23	—	100	23	—	45	23	—	125
24	—	60	24	—	72	24	—	150	24	—	90	24	—	75	24	—	100
25	—	62	25	—	54	25	—	150	25	—	80	25	—	72	25	—	100
26	—	78	26	—	60	26	—	135	26	—	80	26	—	60	26	—	80
27	—	70	27	—	40	27	—	113	27	—	100	27	—	50	27	—	70
28	—	82	28	—	35	28	—	100	28	—	115	28	—	90	28	—	80
29	—	90				29	—	80	29	—	100	29	—	120	29	—	70
30	—	70				30	—	80	30	—	90	30	—	100	30	—	80
31	—	85				31	—	70				31	—	120		—	

July.		No. of Colliers	August.		No. of Colliers	September.		No. of Colliers	October.		No. of Colliers	November.		No. of Colliers	December.		No. of Colliers
1	Flag up	98	1	Flag up	—	1	Flag up	70	1	Flag up	90	1	Flag up	90	1	Flag up	70
2	—	80	2	—	80	2	—	60	2	—	110	2	—	fog	2	—	60
3	—	70	3	—	—	3	—	50	3	—	105	3	—	100	3	—	—
4	—	70	4	—	80	4	—	45	4	—	80	4	—	150	4	—	50
5	—	70	5	—	70	5	—	40	5	—	80	5	—	130	5	—	80
6	—	70	6	—	40	6	—	—	6	—	60	6	—	fog	6	—	50
7	—	70	7	—	50	7	—	80	7	—	50	7	—	140	7	—	65
8	—	50	8	—	40	8	—	100	8	—	130	8	—	110	8	—	140
9	—	70	9	—	80	9	—	90	9	—	118	9	Lord Mayor		9	—	160
10	—	70	10	—	70	10	—	80	10	—	120	10	—	100	10	—	200
11	—	70	11	—	118	11	—	90	11	—	100	11	—	110	11	—	200
12	—	70	12	—	70	12	—	80	12	—	150	12	—	70	12	—	180
13	—	60	13	—	60	13	—	70	13	—	140	13	—	120	13	—	200
14	—	70	14	—	60	14	—	80	14	—	120	14	—	130	14	—	160
15	—	80	15	—	80	15	—	80	15	—	130	15	—	120	15	—	120
16	—	76	16	—	60	16	—	100	16	—	140	16	—	100	16	—	fog
17	—	80	17	—	65	17	—	90	17	—	120	17	—	90	17	—	180
18	—	60	18	—	80	18	—	80	18	—	110	18	—	100	18	—	130
19	—	50	19	—	128	19	—	70	19	—	90	19	—	80	19	—	90
20	—	40	20	—	100	20	—	50	20	—	100	20	—	100	20	—	240
21	—	90	21	—	100	21	—	80	21	—	90	21	—	90	21	—	220
22	—	100	22	—	80	22	—	80	22	—	70	22	—	110	22	—	334
23	—	60	23	—	90	23	—	90	23	—	60	23	—	145	23	—	—
24	—	80	24	—	80	24	—	80	24	—	85	24	—	100	24	—	—
25	—	100	25	—	60	25	—	70	25	—	80	25	—	110	25	—	—
26	—	100	26	—	70	26	—	60	26	—	65	26	—	140	26	—	—
27	—	90	27	—	80	27	—	75	27	—	87	27	—	100	27	—	—
28	—	80	28	—	70	28	—	60	28	—	70	28	—	100	28	—	200
29	—	70	29	—	70	29	—	65	29	—	80	29	—	90	29	—	180
30	—	60	30	—	70	30	—	105	30	—	97	30	—	90	30	—	156
31	—	40	31	—	70				31	—	70				31	—	210

foggy weather

Harbour-masters' Office,
31 December 1835.

Appendix, No. 27.

No. 27.
Appointment of Mr. G. F. Morice.

By the Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.

To Mr. *George F. Morice*, Master of His Majesty's Yacht, "Royal Sovereign."

WHEREAS we think fit to appoint you to be Master Attendant and Harbour-master of His Majesty's Victualling Yard at Deptford, you are hereby required and directed to proceed forthwith, and take upon yourself the duties of that situation, following such orders and directions as you shall receive from the Superintendent of the said Victualling Yard, or from any other your superior Officer for the time being: for which this shall be your Warrant.

Given under our hands the 20th November 1833.

(signed) *T. M. Hardy.*
M. F. F. Berkeley.

By Command of their Lordships,
(signed) *John Barrow.*

Vice *Wilkinson*, superannuated.

Appendix, No. 28.

No. 28.
Rules for Mooring Ships in the River Thames.

Admiralty-Office, 27th June 1827.

BY His Royal Highness *William Henry* Duke of *Clarence*, Lord High Admiral of the United Kingdom of *Great Britain* and *Ireland*.

RULES, ORDERS and REGULATIONS,

For the preservation of His Majesty's Moorings, and for the mooring, anchoring and placing of all Private Ships of War, Transports, and all other Private and Merchant Ships and Vessels, Lighters, Barges, Boats and other Craft whatsoever, in the Navigable River of Thames, and near the Docks, Dock-Yards, Arsenals, Wharfs and Moorings, belonging to His Majesty therein, for the purpose of keeping the same free and open, and for ensuring a free and safe passage to and from the same respectively; made and established pursuant to an Act of Parliament made and passed in the Fifty-fourth Year of the Reign of his late Majesty King George the Third, chapter 159, intituled, "An Act for the better Regulation of the several Ports, Harbours, Roadsteads, Sounds, Channels, Bays and Navigable Rivers in the United Kingdom; and of His Majesty's Docks, Dock-Yards, Arsenals, Wharfs, Moorings and Stores therein; and for repealing several Acts passed for that purpose."

Art. 1. It is hereby ordered, that no private ship of war or transport, nor any private or merchant-ship or vessel, steam-vessel, lighter, barge, boat or other craft whatever, shall be moored, anchored or placed within the boundaries or limits following; that is to say,

No. 28. Rules for Mooring Ships in the River Thames.

Deptford. Within sixty fathoms from any part of the south-western shore of the said river, between the north end of the wharf of His Majesty's victualling-yard, at Deptford, and a spot on the same shore, situate at the distance of forty fathoms below the lower side of the entrance of Deptford Creek.

Note.—This regulation is not meant to extend to transports, convict-ships, and other vessels having occasion to load and unload at His Majesty's dock-yard and victualling yard; all which ships and vessels may for those purposes, under the superintendence of the officers of those yards, continue to make use of the moorings, which they have hitherto been accustomed to use.

Woolwich. Nor within seventy fathoms from any part of the south shore of the said river, between Long's Wharf, otherwise called Trinity Wharf, (which is situate above His Majesty's dock-yard at Woolwich), and a spot called the Grove, at the eastern extremity or the same dock-yard.

Nor within one hundred fathoms from any part of the same shore between the western boundary of the wharf of the Royal Arsenal, at Water-lane, Woolwich, and the entrance of the canal or basin at the eastern extremity of the said arsenal.

Greenhithe. Nor within seventy fathoms from any part of the shore, commencing at the west end of Ingress Park, and terminating at the New Jetty, recently erected at the lower end of the said park.

Art. 2. It is further ordered, that no private ship of war or transport, nor any other private merchant-ship or vessel, steam-vessel, lighter, barge, boat or other craft, shall be moored, anchored or placed within the distance of forty fathoms from the centre of any of His Majesty's moorings in any part of the said river from the Nore upwards.

Art. 3. And whereas a practice has prevailed of ships and vessels of a light draught of water, unnecessarily coming to anchor in the fair-way or mid-channel, and in the fair stream of the tide, to the great inconvenience of the public and of the navigation of the river, and frequently to the danger of ships of a larger draught and requiring deeper water.

It is therefore further ordered, that no ship, vessel, boat or other craft of any description being light, or which shall draw less than eight feet of water, shall anchor or moor in the mid-channel, or fair-stream of the tide in any part of the said river, so that all merchant ships and vessels of burden, and of larger draught, as well as His Majesty's ships and vessels may have free passage up and down the said river without obstruction.

And lastly, in order to prevent the danger which may arise to His Majesty's ships and stores from fire, it is ordered, that no ship or vessel, steam-vessel, boat, barge or other craft, having any furnace, forge, or fire on board thereof, shall be moored, anchored or placed within the distance of fifty fathoms from the centre of any of His Majesty's moorings; nor shall any ship or vessel whatever, boat, barge or other craft, be breamed, repaired or fitted with engine gear, afloat in any part of the said river or shore thereof, within a like distance of fifty fathoms from the centre of any of His Majesty's moorings, and from His Majesty's dock-yards, arsenals, wharfs and premises, respectively.

By Command of His Royal Highness,
J. W. Croker.

Appendix, No. 29.

No. 29. Mr. Rowland's Regulations and Plan for Mooring Vessels.

REGULATIONS for the PORT of LONDON, and a PLAN for Mooring Vessels to preserve a Navigation through the Collier Pool of 300 feet.

PLAN I.—1st Part.

MOORINGS for COLLIERS in the River *Thames*, so as to preserve, as far as practicable, a Passage of 300 feet.

THE moorings proposed to be laid down in the River Thames will be on the south side, commencing at the mooring-chains known as Church-stairs Tier, and to be continued downwards to the Surrey Canal Docks; the stones of the moorings to be placed 338 feet apart, the length of the tiers, the vessels laying quarter to quarter (*see* Plan), are averaged at 140 feet from hawse-hole of the vessel head up to the hawse-hole of the vessel head down; this will leave 99 feet scope for moorings at each end, and a clear space of 150 feet between the tiers, and allow five tiers.

The mooring-stones not to be less in weight than six tons, and the upper surface to contain 30 feet (superficial measure).

The lower chain attached to the mooring-stone to be 30 feet in length, with a swivel ring at the top, and the chain to be 2 ⅜ inches in diameter. The bridle-chain, or as it is called in the northern ports of England, the "tail," to be 1 ⅜ inch in diameter, weighing 77 lbs. to the fathom.

The

The mooring-stone and chain to be sunk by excavation 6 feet below the surface of the bed of the river.

	SOUTH SIDE OF THE RIVER. Tiers.	Remarks.	The Number of Colliers to be accommodated.	Stones and Chains required.	Bridles for Colliers.	Buoys.
Collier Pool.	Church-stairs Tier - -	- - Barge-roads to be removed.	16	- -	16	4
	Hanover-hole Upper Tier	Water to be deepened	18	4	18	4
	Hanover-hole Lower Tier	- - Ditto, in-shore	18	2	18	4
	Mill-hole Upper Tier -	- - Ditto - -	18	2	18	4
	Mill-hole Lower Tier -	- - Ditto, & barge-roads removed.	16	4	16	4
	5 Tiers - -	- - - -	86	12	86	20

North side.

The tiers to be moored in same manner as on the south side of the river.

The stones for the outside moorings of the tiers to be 7 tons in weight, and the bridle-chains 1 ½ inch in diameter, and to weigh 142 lbs. to the fathom; in every other respect, as to description, the same as on the south side.

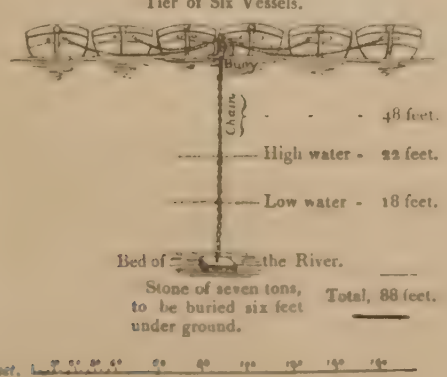
The upper stones to be placed close to the Radius allowed by Act of Parliament to the London Dock Company, and to continue in succession down the river to within 200 feet of the Regent's Canal and Dock.

The stones for each tier to be placed 404 feet apart; the length of the tiers on the north side average about 150 feet from hawse-hole of the vessel head up to the hawse-hole of the vessel head down; this arrangement will leave 127 feet for the moorings at each end, and a clear space between the tiers of 200 feet; and five tiers can be thus moored on the north side of the Collier Pool.

	NORTH SIDE OF THE RIVER. Tiers.	Remarks.	The Number of Colliers to be accommodated.	Stones and Chains required.	Bridles for Colliers.	Buoys.
Collier Pool.	Coles-stairs Tier - -	- - - -	20	4	20	4
	Bell-wharf Tier - -	- - - -	20	2	20	4
	Stone-stairs Tier - -	- - - -	17	2	17	4
	Ratcliffe-cross Upper Tier	- - - -	14	2	14	4
	Ratcliffe-cross Lower Tier	- - The Ballast-road to be removed to Duke's-shore.	12	4	12	4
	5 Tiers - -	- - - -	83	14	83	20

PLAN II.

MOORINGS for VESSELS between *Duke's-shore* and *Blackwall*, to swing.



No. 29.
Mr. Rowland's Regulations and Plan for Mooring Vessels.

MOORINGS necessary to be laid down for the use of SHIPPING resorting to the Port of *London*, out of the Pools, or on the Lower Station between *Limehouse* and *Bugsby's-hole*, all of them to swing at Moorings, (*see* Plan II.) thus:

LOWER STATION. Tiers.	Remarks.	The Number of Vessels to be accommodated.	Stones and Chains required.	Bridles.	Buoys.	Expense.
						£
Duke's-shore - -	For light colliers -	12	2	- -	2	—
Deptford, at the Red-house and King's Moorings.	- - All classes of vessels mooring down.	60	- -	6	6	—
Greenwich - - -	- - Swinging tiers for colliers.	72	12	- -	12	—
The Bight, called "Rofery-hole."	Colliers - -	24	4	- -	4	—
Folly-house, &c. - -	Ditto - - -	36	6	- -	6	—
30 New Moorings.	- - - -	204	24	6	30	3,840

	Colliers.	£.
Moorings on the south side of the river from Church-hole to the Surrey Canal, five tiers; water to be deepened, and the lighter-roads removed, would give accommodation for - - - - - -	86	
North side of the river, from the London Dock entrance to the Regent Canal entrance, five tiers - - - - - - - - - -	83	
		4,600
From Duke's Shore to Blackwall, 30 tiers; and with the accommodation of the moorings at the Red-house and Dock-yard at Deptford, a further advantage - - - - - - - - - -	204	3,840
Should the moorings in the Collier Pool require two stones to each chain instead of one as here proposed, the increased expense would be - - - - - - - - - - - - - -	-	700
Accommodation - - - Vessels	373	for 9,140

In addition to the above, it would be desirable to have eight buoys and stones laid down off Woolwich below the dock-yard, to accommodate 48 sail of colliers and other vessels; this would prevent the vessels straggling about the river in those parts, and would remove a great annoyance to which the shipping frequenting His Majesty's dock-yard are at present liable to. It would induce the vessels to come up to Woolwich, and thus be clear of the range of ordnance proof and practice.

PROPOSED REGULATIONS for Mooring Colliers.

That every mooring chain and stone shall be provided with bridles (as hereinafter mentioned), and in case any ship or vessel shall take any station or berth where there is no spare bridle, to take on board for the mooring of such ship or vessel, the owner, master or other person in charge should be liable to a penalty of pounds.

	Vessels.
South side:	
Church-hole tier, four moorings and four bridles to each - -	16
Hanover-hole upper tier, two moorings inside, five bridles to each - - 10 — two outside moorings, four bridles to each - - 8	18
Hanover-hole lower tier, the like number - - - - - - -	18
Mill-hole upper tier, the like number - - - - - - - -	18
Mill-hole lower tier, four moorings and four bridles to each - - - -	16
North side:	
Cole's-stairs tier, four moorings and five bridles to each - - - - -	20
Bell-wharf tier, ditto - - - - - - - - - - - -	20
Stone-stairs tier, four moorings and four bridles to each of the outside stones and lower inside, and five bridles to the upper mooring inside - - -	17
Ratcliff Cross upper tier, four moorings; the two outside moorings to have six bridles, and the two inside ones eight bridles - - - - - -	14
Ratcliff Cross lower tier, four moorings and three bridles to each - - -	12
£.3,600 expense. - - Total Vessels - - -	169

Each

577

No. 29.
Mr. Rowland's Regulations and Plan for Mooring Vessels.

Each bridle-chain to be designated and known by an iron tally or label, and one buoy to be affixed to the centre bridle of each mooring, to hold the bridles when they are not in use.

The vessel stationed at the centre bridle or buoy-chain shall hold the buoy afloat under her bows, so that when either of the other vessels shall leave the tier, the owner, master, or other person having the charge or command before the vessel quits the said mooring, shall either deliver it to the next coming ship or vessel that shall take the berth so vacated, or shall shackle the end of the bridle-chain to the ring of the buoy, that it may be in readiness for any other vessel on her arrival to take the vacant berth. When the vessel holding the buoy shall leave the mooring, and there shall be no vessel ready to take the bridle and buoy, then the master or person in charge of such ship or vessel shall cause the same to be taken to the next ship or vessel, and this regulation to be observed in all the mooring tiers from Church-hole to Limehouse, according to the number of vessels allowed to each moored tier, then the last vessel shall drop the buoy with the bridle-chains shackled thereto.

Any owner, master or other person refusing to hold the buoy, or not following the regulations, to be subject to a penalty of pounds.

The superintendent of moorings or his assistants should be ordered to make a daily survey of all the moorings and buoys, and to report all vessels not properly moored in the tiers to the harbour-masters. And in case any owner, master or other person having the charge or command of any ship or vessel, shall refuse or neglect to moor properly, according to the directions of the harbour-master, he should for every such offence pay a sum of pounds; and it should be lawful for the harbour-masters to cause such ship or vessel to be properly moored, and the expenses (in addition to the penalty) to be paid by the owner, master or other person having the charge or command.

Remarks.—Much inconvenience will arise from the exposure of the limited powers of the harbour-masters to regulate and control the shipping resorting to the port of London; it is therefore important that legislative enactments, such as the following, should take place this Session of Parliament, to enable the harbour-masters to legally and efficiently perform their duties to the public.

PROPOSED REGULATIONS to be observed by Shipping, and Powers to be granted to the Harbour-masters of the Port of *London*.

To carry into effect the advantages of good and secure moorings, and to preserve, as far as practicable, a free and unobstructed passage through the navigation of the river Thames for every description of traffic, it is highly necessary that efficient laws and regulations should be made for the guidance and observance of the shipping, and that the harbour-masters should have effective power to carry those laws and regulations into practical effect.

Regulation 1. That every vessel entering, lying in or navigating on the river Thames within the port of London, should have marked in legible figures on each side of the stem and stern-post, the actual draught of water of such ship or vessel; and the owner or master neglecting to have such marks should be subject to a penalty of pounds.

Note:—The effect of this regulation is to enable the harbour-masters to berth the vessels in their proper positions, according to their draught of water.

2. That no ship or other vessel shall lay between any of the tiers between Fountain-stairs and Duke's Shore for any purpose whatever, unless the said ship or vessel shall be in the act of hauling into a berth in a tier, or departing out of the Pool. The owner, master, waterman or other person having the charge or command should be subject to a penalty of pounds.

Note:—Much obstruction to the business of the port arises from vessels hauling out of the tiers to deliver the last of their cargoes, and to ballast.

3. No vessel coal laden, or in part coal laden, should on any account be permitted into the Pools without a written order from the harbour-masters' offices at St. Katharine's and Greenwich, whilst the collier detention flag is flying at Greenwich; and in cases where the cargo is only in part sold, and the vessel with the unsold part should remain in the Pool beyond one market day (if still unsold) shall be subject to a penalty of pounds, and the harbour-masters should have power to cause such vessel to be removed out of the Pool.

4. One day-light tide should be allowed to all vessels coal laden after the cargo is sold, and after a weigher or meter is appointed to weigh and deliver the cargo, in order that they may get into a proper berth in the Pool, and not be subjected to the expense of a "baulked day."

Vessels coal laden not passing under the coal-market regulations, should not be allowed to proceed to the Pool but by the written order of the harbour-master, such order to be given on the production of the Custom-house certificate of duty paid, and the buyer's certificate of going to work the next day, at the office at Greenwich. The owner, master or other person having the charge or command of such vessel, not complying with this regulation, to be subject to a penalty of pounds.

No. 29.
Mr. Rowland's Regulations and Plan for Mooring Vessels.

5. That all steam-vessels navigating or being within the limits of the port of London, shall have the name of the vessel painted in letters, in no case to be less than six inches in length, on the outside of each of the paddle boxes, and also on each bow. That all steam-vessels navigating within the port of London shall after dark display a light under the bows, and another at the mast-head. The owner, master, pilot or other person having the charge or command, should be subject to a penalty of pounds, for non-compliance with the above regulations.

6. That the boats employed in the harbour service should be navigated by six watermen (in no case by less than four), and the officer when on duty should wear a neat distinguishing uniform, to be sanctioned by His Majesty.

Note:—The proposed number of watermen for the harbour-boats are absolutely necessary, and required for the efficient performance of the duties of the harbour-masters. In many cases obstructions might be prevented and removed by a timely interference with proper hands, and the men would be ready, in cases of emergency, to render assistance to shipping. One of these men should be qualified to act in the absence of the harbour-masters (should he be called away upon any other duty afloat or on shore), and be approved of by the honourable the Elder Brethren of the Trinity House. It is not an uncommon practice for vessels to drop out of the tiers, and to take stations outside of them, so as to obstruct the navigation; in such cases it should be lawful for the harbour-masters, or their assistants, to remove such obstruction forthwith. Vessels are frequently left in charge of ship-keepers and apprentices, and sometimes without any person being on board: the harbour-masters, with a proper force of watermen, would be enabled to remedy any complaint arising in such cases. Power of this description is given to the harbour-masters of every other port in the kingdom but that of London, a port which requires the strictest regulations, from the great extent of its trade.

7. A clerk to be appointed to attend at the harbour-masters' office, at Greenwich.

Note:—The duties required to be performed by the harbour-masters afloat are incompatible with the duties necessary to be observed at the harbour-masters' office.

8. The superintendent and the executive part of the mooring-chain service, should be directly under the control of the harbour-masters, who should be responsible for the efficient performance of the service to the authorities.

Note:—A mooring-wharf, with a powerful crane, and proper storehouses, should be established in the neighbourhood of Globe-stairs. In this storehouse anchors, kedges, warps, &c., should always be kept in readiness, and lent when required by the shipping in cases of accident or emergency.

9. A heavy penalty should be imposed on any person obstructing the harbour-masters in the execution of their duties, or who shall make use of abusive or threatening language.

Note:—Mr. Rowland, in the execution of his duty, went on board a vessel, called the "Jane": (a Mr. Brown, a publican, in Wapping, was the owner.) This owner stood upon the forecastle of the vessel, and with a handspike in his hand, declared that he would knock the harbour-master's brains out if he touched a rope belonging to his ship, and he put himself in attitude to carry the threat into execution. No police officer could be found for three hours. The vessel was moved the next day from Mill-hole to Limehouse. The case was laid before the late City solicitor, who declared, that the expenses and penalties could not be enforced, and as no actual assault had been committed, an action at law could not be maintained.

10. All owners of vessels should cause a copy of the laws, rules, orders and regulations of the port of London, to be kept on board every vessel belonging to or engaged in the trade with the port of London.

Note:—Copies to be obtained on application, at the office hours, at the harbour-masters' offices, at St. Katharine's and Greenwich.

Proposed powers for the harbour-masters.

And be it further enacted, That the present and future harbour-masters and every of them, shall have full power and authority to direct the entering, mooring, unmooring, moving and removing of all ships, steam-boats, lighters, barges, boats or other vessels of any description whatsoever (except those of the corporation of the Trinity House) coming into, lying or being in the said port of London, as to the time or times and manner of their entrance into, lying in, or going out of the same and their respective berths, station, positions, loading and discharging therein; and in case any owner, master, pilot, waterman or other person having the command, direction, management or charge, or being employed on board of any ship, steam-boat, lighter, barge, boat, or any other vessel within the said port of London, shall refuse or neglect to obey any request or order given by any of the said harbour-masters in the execution of this Act, he the said owner, master, pilot, waterman or other person having the charge or command, shall forfeit and pay for every such offence the sum of 5*l.*; and in case any owner, master, pilot, waterman or other person having the charge shall neglect or refuse to moor, unmoor, move or remove such ship, steam-boat, lighter, barge, boat or any other vessel, according to such direction as aforesaid, it shall be lawful for any harbour-master and his assistants, and such proper persons as he may direct, if he shall think proper (but not otherwise), to moor, unmoor, move or remove such ship, steam-boat, lighter, barge, boat or other vessel, and the charges and expenses thereof

thereof respectively shall be paid by the said owner, master, pilot, waterman or other person having the charge or command, together with the penalty or forfeiture to be paid for such neglect or default as aforesaid.

No. 29. Mr. Rowland's Regulations and Plan for Mooring Vessels.

For preventing obstructions in port of London.

And for the better making and preserving of a free and clear entrance, navigation and passage into and within, and also a free and clear passage out of the port of London, be it further enacted, That no ship, steam-boat, lighter, barge, boat or other vessel of any description whatsoever shall lie across, in, or in anywise unnecessarily obstruct any of the entrances or passages into and within, or any of the passages or outlets from the said port, and that if any ship, steam-boat, lighter, barge, boat or other vessel entering, navigating, using, lying, loading or unloading upon the river Thames within the said port of London, shall be placed, or suffered to remain in any part of the same respectively, so as unnecessarily to obstruct the navigation and passages thereof, and the owner, master or other person having the command or direction of such vessel, shall not immediately, upon request made remove the same, he shall, for every such offence, forfeit a sum not exceeding 10*l.*, and also the sum of 5*l.* for every hour of such obstruction after such requisition; and it shall be lawful for any harbour-master or his assistants, and such proper persons as he may direct, if he shall think proper (but not otherwise), to moor, unmoor, move or remove any ship, steam-boat, lighter, barge, boat or other vessel, in such manner and to such place as shall be proper for preventing such obstruction.

Vessels laden with coals not to discharge their cargoes in the stream of the river Thames, between London Bridge and Fountain Hole.

And be it further enacted, That no vessel entering the port of London, being laden in the whole or in part with coals, shall proceed higher up the said river Thames than Fountain-hole on the south side of the river, and Wapping New-stairs on the north side of the river; and in case any vessel shall lie in or discharge the said cargo, or part cargo of coals, or any part thereof into any barge, lighter, boat or other craft, in any part of the stream of the river Thames between London Bridge and Fountain-hole and Wapping New-stairs as aforesaid, the owner or master of the said vessel shall forfeit and pay the sum of 20*l.*

Harbour-masters to detain, between Deptford and Bugsby Hole, all vessels, coal laden, or in part coal laden, from entering the Pools, and to cause a flag to be hoisted at or near the office at Greenwich.

And be it further enacted, That whenever it shall appear to the said harbour-masters, or any of them, that no more vessels, coal laden or in part coal laden, should proceed higher up the river Thames than Deptford, then the said harbour-masters or harbour-master shall cause a flag, half red and half white, to be hoisted on a flag-staff provided for that purpose, at or near the harbour-masters' office at Greenwich: and in case any owner, master, pilot, waterman or other persons having the charge or command of any ship or vessel coal laden or in part coal laden, shall proceed higher up the river than Deptford, after the said flag is hoisted, or shall remove from their moorings without permission first obtained under the signature of one of the said harbour-masters, or the clerk to be appointed to the office at Greenwich under the order of the said harbour-master or harbour-masters, he the said owner, master or other person having the charge or command of such ship or vessel so removed as aforesaid, shall forfeit and pay the sum of five pounds.

Offences to be heard before one or more justice or justices on complaint.

All offences committed against this Act shall be taken notice of by complaint before any one or more of His Majesty's justices of the peace for the county, city or place wherein such offence shall be committed, upon oath of any harbour-master or other persons.

Penalties to be recovered.

And be it further enacted, That all penalties to be recovered for offences committed against this Act, and in case of non-payment thereof immediately after the same shall be demanded, it shall be lawful for any such justice or justices for the time being, by warrant under his or their hand and seal, or hands and seals, to levy the same, together with the costs and charges incident thereto, by distress and sale of the goods and chattels of every such owner, master, pilot, waterman or other person so offending, or of the tackle, apparel or furniture of such ship, steam-boat, lighter, barge, boat or other vessel, rendering the overplus (if any) to such owner, master, pilot, waterman or other person whose goods or things shall be so distrained; and if sufficient distress cannot be found, then it shall be lawful for the justice or justices, by warrant under his or their hand and seal, or hands and seals, to commit such offender or offenders to any prison within his or their jurisdiction, there to be kept to hard labour for any time not exceeding thirty days, unless such penalty shall be sooner paid.

Remarks.—It is highly important that the warehouse-keepers and wharfingers occupying premises on the banks of the river Thames should know that they have no right or claim to any portion of the river beyond low-water mark, but in common with all classes of persons using the waters of the said river.

It is more desirable at this period that an expression of opinion should be made to the public, as piers, wharfs and premises are daily fitting for the reception of steam-vessels; and applications are made to the Navigation Committee and the harbour-masters, to alter and remove tiers for the convenience of the parties. The error has arisen from Parliament having granted large spaces of the river Thames exclusively to the accommodation of dock companies; and it is considered that wharfingers have the same right or claim upon the river, and that the authorities are bound to find them free access at all times to their premises.*

Mem.—The

* Applications have been made to Parliament by speculators for exclusive privileges to parts of the river Thames, to piers on the banks of the river, and thus most important tiers and berths for the trade of London would be destroyed for their peculiar benefit.

No. 29. Mr. Rowland's Regulations and Plan for Mooring Vessels.

Mem.—The moorings require alteration; those used heretofore in the Pools were of small dimensions, and laid down for the accommodation of vessels from 60 to 90 feet in length: consequently, they are not adapted for steam-boats, many of them being near 200 feet long, and 50 feet beam.

Omitted on the Question relative to Steam Regulations.

Waithman, Mayor:

Notice is hereby given to the masters and owners, and all persons navigating steam-vessels upon the river Thames, that in order to prevent the great danger and numerous accidents which may arise from the rapidity with which such vessels may be navigated, the Right honourable the Lord Mayor has deemed it requisite, for the protection and security of all other vessels and persons navigating upon the said river, to direct that the following orders and regulations be adopted and abided by, and that the harbour-masters of the port of London do see the same duly enforced:

That all steam-vessels when bound up the river, upon arriving off the east wing of Greenwich Hospital, do reduce the steam or velocity of the vessel so as not to pass through the water with a flood tide at a rate beyond four miles per hour, or against the ebb tide at a rate beyond six miles per hour, until their arrival abreast the Limehouse entrance to the West India Docks; and that from thence to their moorings they do reduce the steam or velocity so as not to pass through the water with a flood tide at a rate beyond three miles per hour, or against the ebb tide at a rate beyond five miles per hour.

And that they observe the same regulations on their outward voyages.

That they be particularly on their guard, when coming near deep-loaded barges or other craft and passage-boats, to check their rate or velocity; and on no account (except when landing passengers) shall any steam-vessel following any other steam-vessel, endeavour to pass the same, after arriving upwards at the Limehouse entrance of the West India Docks, or until they shall have arrived there on their downward voyage, and so on in succession.

That when they cannot arrive at their point of destination before dark, they hang out a lanthorn with a strong light, either at the bows of the vessel, or where it shall be deemed most necessary to prevent accidents.

And in order that all parties concerned may be duly apprized of the foregoing orders and regulations, copies thereof be delivered by the harbour-masters to the captains of all steam-vessels navigating the river, and that they do cause the same to be affixed in some conspicuous part of their vessels; and that these orders and regulations be printed, and posted up at all the principal stairs and plying-places on both sides of the river, between London Bridge and Blackwall, and published in the usual morning and evening newspapers.

By order of his Lordship,

Mansion-House, 20th June 1823. (signed) *Francis Hobler*, Clerk.

Appendix, No. 30.

REPORT from the Trinity Corporation to the Board of Privy Council for Trade on removing SHOALS and BANKS in the River *Thames*.

Office of Committee of Privy Council for Trade,

Sir, Whitehall, 20 June 1836.

No. 31. Report on moving Shoals and Banks.

I AM directed by the Lords of the Committee of Privy Council for Trade to transmit to you, pursuant to an order of the Select Committee of the House of Commons on Port of London, of the 17th instant, a copy of the Report of the 30th May 1834, from the Trinity Corporation to this Board, setting forth the reasons for not removing the shoals and bank in the river.

I have the honour to be, Sir, your obedient servant,

To the Hon. Fox Maule. *Denis Le Marchant.*

Sir, Trinity House, London, 30 May 1834.

I HAVE to acknowledge the receipt of your communication of the 26th instant, signifying by direction of the Right Honourable the Lords of the Committee of Privy Council for Trade, that since the letter which I had the honour to address to you under date the 30th ultimo, their Lordships have been still more forcibly urged to consider of the means by which the shoals which impede the navigation of the river may be removed; stating also, that the complainants in this matter consider that this Corporation is bound to remove the obstructing matter, although the substance of it may not be such as is suitable for the purpose

No. 30. Report on moving Shoals and Banks.

purpose of ballast, because the removal of such obstructions constitutes the benefit to the public contemplated in the Grant of the Charter; and further signifying their Lordships' request to be informed of the ground on which the Elder Brethren consider they are not obliged to perform the duty which it is asserted by those parties falls upon that Corporation.

Upon the renewed consideration of this subject, and in especial reference to the point on which their Lordships desire to be informed, I have it in command to request you will submit to their Lordships that the Elder Brethren are clearly of opinion that the responsibility which it appears is now attempted to be thrown upon them by the complainants in this matter, to remove all obstructing matter to the navigation of the River Thames, does not attach under existing circumstances to this Corporation.

By the Grant of the 36th year of her Majesty Queen Elizabeth, it appears that the "lastage and ballastage, and office of lastage and ballastage of all and all manner of ships, and other vessels whatsoever coming and being upon the river of the Thames," &c. &c. were surrendered by the then Lord High Admiral of England unto Her Majesty, with a request that the same might be granted and confirmed to this Corporation, and Her Majesty was graciously pleased to grant and confirm the same accordingly, in the manner and for the sole purpose above-mentioned.

In the 17th year of the reign of King Charles the Second, the lastage and ballastage were granted anew to the Trinity House, upon a surrender of a previous Grant of the 15th year of that reign, consequent upon some doubts which had arisen respecting the same. In that Grant of the 17th year of his said Majesty, it is recited: "Whereas many decayed seamen, their wives, widows and orphans have from time to time received good relief by the hands of the said master, wardens and assistants of the said Trinity House of Deptford Strond, out of the lastage and ballastage raised and taken forth of our said river of Thames, for ballasting of ships and other vessels;" and the lastage and ballastage of ships and vessels in the river Thames is then regranted to the said master, wardens, &c., for the uses, intents and purposes aforesaid; and in a subsequent part of the said Grant, His Majesty was pleased "to give unto the said master, wardens, &c., to and for the uses, intents and purposes aforesaid, the gravel, sand and soil of the said river of Thames, and every part and parcel thereof, for the ballasting of ships and other vessels."

The Elder Brethren forbear to occupy their Lordships' time with the recital of many other passages to the same effect, which are to be found in the said Grant, trusting that sufficient has been adduced to manifest to their Lordships, that the grant of the gravel, sand, &c., of the river Thames, and of the ballastage therein, was made to this corporation for the ballasting of ships and vessels; having for object, as is expressed in the said Grant, that the "gravel, sand and soil by them to be taken out of the said river, be raised, had and taken out and from such shelves and places of the said river, as are or shall be of danger to shipping in the said river, and for the bettering and more safety of the same;" and also, that the profits thereof should be applied to the relief of decayed seamen, their wives, &c., as before expressed.

The Elder Brethren further direct me to submit to their Lordships, that the opinion which they entertain upon this subject is confirmed by the subsequent part of the said Grant, wherein mention is made of the "better advancement of the said work of cleansing the said river, and the more speedy and effectual performance, perfecting and accomplishing of the same, so much tending to the benefit of the commonwealth," because especial means of defraying the charges thereof are thereby provided, altogether separate and distinct from the profits of the office of lastage and ballastage thereby granted, which are not made in any degree applicable to this last-mentioned purpose, but are reserved whole and entire for the objects of charity before mentioned. Those sources of revenue, if at any time applied to that purpose, have long since ceased to be so, and the Brethren apprehend could not at this time be in any manner rendered available thereto. But they desire me in conclusion to observe, that while they have been at all times desirous and ready to render the execution of the office they hold under the Royal Grant before recited available to the removal of annoyances and obstructions to the navigation of the river Thames, so far only as the materials of which they have consisted could be rendered available to the ballasting of ships, they are not in any degree desirous of avoiding any responsibility which can be justly considered to attach to them for the removal of obstructions of a different description, provided it shall be the pleasure of His Majesty's Government to place at the disposal of this corporation sufficient funds for that purpose, independent of the profits of the lastage and ballastage, as unquestionably appears by the terms of the Royal Grant to have been originally intended.

I have, &c.

(signed) *J. Herbert.*

Thomas Lack, Esq.
&c. &c. &c.

Appendix, No. 31.

A LIST of TIERS and FERRIES, describing the Number of Vessels at each TIER, the Depth of Water at the same in the Inside, Middle and Outside; and also the Width of the Navigable Channel from *London Bridge* to the upper part of *Limehouse Reach* on the North Side, and from *London Bridge* to the *Surrey Canal*, on the South side of the River *Thames*.

NORTH SIDE, TIERS AND FERRIES.	Number of Ships.	Depth of Water. Inside.	Middle.	Outside.	Navigable Channel.	Waterway at low water across, as per feet.	Distance from place to place along shore.	Distance from place to place along shore.	Waterway across at low water.	Navigable Channel.	Depth of Water. Outside.	Middle.	Inside.	Number of Ships,	SOUTH SIDE, TIERS AND FERRIES.
										11	11	11	10	6	Battle Bridge.
Custom-house Upper Stairs	-	-	-	-	-	630	-	-	-	-	-	-	-	-	*Battle Bridge Stairs.*
Eel Chain	6	7	11	12	10					13	12	12	10	5	Pickle Herring Upper Tier.
Yarmouth Chain	6	9	9	10	10					12	12	12	12	5	Ditto - - - Middle ditto.
Steamboat Tier	4	7	9	10	11		1,978	693		12	12	12	11	5	Ditto - - - Lower ditto.
Custom-house Lower Stairs.										-	-	-	-	-	*Pickle Herring Stairs.*
Dublin Chain	6	11	12	14	15					14	12	12	10	-	Merritt's (private) Swing Tier.
Tower Stairs	-	-	-	-	-	593	X	1,056 X	-	12	11	11	8	7	Limekiln Chain.
Steamboat Tier	3	10	13	13	12					13	13	11	9	7	Lighter Road Small Coasters.
King's Moorings	*The Persius and Episcopal Ship.*									11	10	10	9	7	Ditto - - ditto.
King's Stairs Tower															
Tower Upper Tier	6	11	12	13	15		1,152	-	-						
Tower Middle Tier	5	9	9	13	13										
Tower Lower Tier	5	11	12	14	12										
Iron-gate Tier	6	11	12	14	12										
Iron-gate Stairs	-	-	-	-	-	700	X	X	-	-	-	-	-	-	*Horselydown Old Stairs.*
Steamboat Upper Tiers	4	9	11	14	13		1,153	675		13	11	10	11	8	Garlands Chain.
Steamboat Lower Tiers	4	15	12	13	12					15	13	11	9	7	Old Rose Tier.
St. Katharine's Dock Entrance.										12	11	11	10	7	Horselydown Upper Tier.
Alderman's Upper Tier	6	10	9	12	13										
Alderman's Stairs	-	-	-	-	-	690	X	X	-	-	-	-	-	-	*George's Stairs.*
Alderman's Middle Tier	7	10	10	12	14		642	270 X		13	11	11	11	6	Horselydown Middle Tier.
Alderman's Lower Tier	7	8	9	12	15					-	-	-	-	-	*Horselydown New Stairs.*
Hermitage, Upper	7	8	10	12	12		609	530 X		13	13	11	10	7	Horselydown Lower Tier.
Hermitage Stairs	-	-	-	-	-	645	X	X	-	-	-	-	-	-	*Mill Stairs.*
Hermitage Middle	7	8	10	12	14					14	13	11	8	6	Mill Stairs Tier.
Hermitage Lower	7	7	11	13	14					15	13	10	10	6	Bishop's Chain.
Union Tier Upper	7	9	10	11	15		712	962 X		14	14	12	11	2	East Lane, Upper, Sm. Vessels.
Union Stairs	-	-	-	-	-	655	X	X	-	-	-	-	-	-	*East Lane Stairs.*
Union, Lower	6	11	13	16	16					16	15	13	11	2	East Lane Lower.
Wapping Entrance, London Docks	-	-	-	-	-	677	1,010	980 X		20	18	13	10	2	Fountain Dock.
Wapping Old Stairs.										-	-	-	-	-	*Fountain Stairs.*
Shadwell Entrance, London Docks										19	12	11	11	6	Cherry Garden Upper Tier.
Bell Wharf Upper Tier	20	10	15	15	15					18	13	12	11	6	Ditto - - - Middle.
Bell Wharf Stairs	-	-	-	-	-	845	X	X	631	-	-	-	-	-	*Cherry Garden Stairs.*
Bell Wharf Lower Tier	20	11	15	15	13		688	929		18	18	14	11	6	Cherry Garden Lower Tier.
Stone Stairs	-	-	-	-	-	730	X	X	-	17	16	12	10	7	Rotherhithe Upper Tier.
Stone Stairs Tier	18	10	17	16	17		564	792		-	-	-	-	-	*Rotherhithe Stairs.*
Ratcliffe Cross, Upper	16	11	16	16	15				597	15	15	14	11	7	Rotherhithe Lower Tier.
Ratcliffe Cross Stairs	-	-	-	-	-	680	X	X	595	-	-	-	-	-	*King Stairs.*
Ratcliffe Cross, Lower	14	12	16	17	15		980	792		15	14	12	7	7	King Stairs Tier.
Regent's Canal	-	-	-	-	-	656	-	-		16	17	19	11	8	Prince's Stairs Tier.
Dowson Dock	-	-	-	-	-	590			607	-	-	-	-	-	*Prince's Stairs.*
Duke Shore Causeway	-	-	-	-	-	566	858	X	-	-	-	-	-	-	*Elephant Stairs.*
Limehouse-hole Stairs	-	-	-	-	-	688	-	-		15	16	17	12	7	Trinity Tier.
Limehouse-hole Tier	7	12	17	16	15	695	675	544		14	16	16	12	8	Church Hole.
West India Dock Entrance	-	-	-	-	-	740	1,010	X	670	-	-	-	-	-	*Church Stairs.*
Canal Upper Tier	8	9	15	16	15					16	18	12	12	18	Hanover-hole Tier.
City Canal	-	-	-	-	-	854		780	770	-	-	-	-	-	*Hanover-hole Stairs.*
Tier below the Canal	9	12	13	13	14					17	14	12	11	18	Mill-hole Upper Tier.
Second Tier, ditto	10	9	11	13	14	800	-	1,015 -		16	15	14	13	18	Ditto - Lower Tier.
							-			-	-	-	-	-	Surrey Canal.

DESCRIPTION OF SHOALS.

NORTH SIDE.

	feet.
No. 1. *Limekiln Shoal:*	
Runs out from east to west	460
From low-water mark, west side, to the outer edge	235
No. 2. *Whiting Shoal, Limehouse Reach:*	
Off the Acorn Dock Yard, from low-water mark to the inner edge	170
Width across the Shoal	126
Average width of the Channel between the Shoal and the Isle of Dogs	554
Total width across the river, at low water	850
Length of Shoal from north to south	722

NORTH SIDE—*continued.*

	feet.
No. 3. *Shoal off Crowley's Wharf:*	
From low-water mark to outer edge	442
Shoal on the point from low-water mark to outer edge	200
Navigable Channel	237
These shoals extend from Crowley's Wharf, narrowing downward to the Rope Ground.	
Total width across	879
No. 4. *Middle Ground, Blackwall Reach:*	
Below the Upper Sluice on the west side from low-water mark to inner edge	310
Width	114
Total Width	890

No. 31. List of Tiers and Ferries.

SOUTH SIDE.

No. 5. *Gun Shoal:* *feet.*

From low-water mark to inner edge	167
Across the Shoal	100
Length of Shoal from north to south	473
Width at low water	1,000

No. 6. *Bow Creek Shoal:*

Runs out	355
And extends to the first sluice in Bugsby's Hole, north side.	
Total width across the river	1,162

No. 7. *Brock's Bay Shoal:*

Length, east and west	1,020
The greatest width about the middle, from low-water mark to the outer edge	340

SOUTH SIDE—*continued.*

No. 8. *A Shoal on the North Side, opposite Bugsby's Hole Causeway:* *feet.*

Runs out from low-water mark to the southward	530

No. 9. *Cooper's Shelf, Woolwich Reach, off the Anchor and Hope:*

Outward	654
Width east and west	304

No. 10. *Charlton Upper Shelf, off Sluice:*

Upper end, from low-water mark	120
Low end ditto	337
Length	1,112

No. 11. *Charlton Lower Shelf:*

Off the 3½ mile-post, from low-water mark to the outer edge	680
Width	1,302

RED HOUSE MOORINGS:

1st and Upper Tier.
2d - - Ditto.
3d - - Ditto.

THE KING'S MOORINGS:

1st Tier.
2d Tier.
3d Tier.
4th Tier.
} King's Moorings, but made use of by merchantmen.

Harbour-masters' Office, St. Katharine's, March 1836.

Charles Rowland.

Appendix, No. 32.

No. 32. Coal Trade Returns.

AN ACCOUNT showing the Number of VESSELS Coal-laden that have been detained on the Lower Station, or between Duke's Shore and Bugsby's Hole, for want of room in the Collier Pool: showing also the Days on which the Flag has been flying at Greenwich, for the detention of Colliers during the months of January, February, March, April, May and June 1836.

Day of the Month, 1836.	January.		February.		March.		April.		May.		June.	
	Colliers.	Flag.	Colliers.	Flag.	Colliers.	Flag.	Colliers.	Flag.	Colliers.	Flag.	Colliers.	Flag.
1	185	Up -	72	Up -	88	Up -	50	Up -	120	Up -	115	Up.
2	162	–	140	–	95	–	40	–	100	–	140	–
3	170	–	137	–	80	–	82	–	117	–	130	–
4	180	–	120	–	72	–	87	–	110	–	120	–
5	175	–	100	–	56	–	200	–	120	–	117	–
6	160	–	100	–	37	–	134	–	128	–	125	–
7	231	–	117	–	58	–	120	–	100	–	110	–
8	165	–	100	–	35	–	200	–	68	–	100	–
9	180	–	100	–	100	–	161	–	90	–	120	–
10	174	–	140	–	85	–	156	–	100	–	100	–
11	176	–	130	–	40	–	160	–	56	–	87	–
12	160	–	90	–	90	–	143	–	60	–	80	–
13	152	–	100	–	84	–	160	–	40	–	90	–
14	132	–	86	–	45	–	100	–	20	–	110	–
15	100	–	110	–	20	–	78	–	25	–	150	–
16	116	–	117	–	26	–	50	–	30	–	150	–
17	127	–	96	–	- -	- down, A M.	60	–	40	–	127	–
18	120	–	100	–	20	P. M. Up.	66	–	60	–	100	–
19	150	–	95	–	58	–	60	–	55	–	110	–
20	130	–	100	–	82	–	60	–	70	–	95	–
21	150	–	131	–	60	–	77	–	92	–	100	–
22	135	–	95	–	85	–	65	–	140	–	90	–
23	stormy weather.	–	120	–	45	–	50	–	120	–	95	–
24	110	–	120	–	80	–	121	–	174	–	100	–
25	116	–	80	–	54	–	85	–	180	–	80	–
26	142	–	100	–	50	–	50	–	200	–	70	–
27	130	–	93	–	30	–	97	–	161	–	90	–
28	140	–	86	–	73	–	80	–	140	–	80	–
29	120	–	90	–	80	–	90	–	150	–	70	–
30	80	–	- -	–	40	–	117	–	160	–	80	–
31	100	–	- -	–	47	–	- -	–	143	–	–	–

19 July 1836.

Charles Rowland,
Harbour-master, Port of London.

No. 32. Coal Trade Returns.

Gentlemen, St. Katharine Docks, 16 April 1836.

HAVING communicated to the board of directors of the St. Katharine Dock Company the proceedings held yesterday before the Elder Brethren of the Trinity Corporation, at the instance of the Dock Company, under the provisions of the 79th section of the Act of the 39 Geo. 3, c. 69, for the purpose of an investigation into certain charges against the harbour-masters, for neglect of duty on the 31st of March last, when 18 colliers were permitted to be moored in four of the tiers in the Lower Pool beyond the number allowed, by which the passage appropriated for the transit of shipping was seriously obstructed, and additionally encroached upon by vacant spaces for several colliers in the centre of the tiers, contrary to the bye-laws for regulating the port of London; and the dock company, after the charges had been substantiated, having spontaneously offered to withdraw the complaint, upon the condition of the harbour-masters giving a distinct assurance to the Elder Brethren that they would obey and enforce the bye-laws; which proposal was accepted, and the assurance given by the harbour-masters accordingly.

The directors, with a view to avoid any misunderstanding on the part of the harbour-service, of the nature and extent of the assurance given, instruct me to state for the information of the harbour-masters, that so long as the present bye-laws shall be in force, it is distinctly understood that the regulations established by the 24th bye-law, and which especially require that a passage shall be kept of the width of not less than 300 feet, shall be scrupulously enforced; such regulation to be considered paramount, and all other regulations to be subordinate, in conformity with the letter and spirit of the bye-laws, and that no encroachment upon such width of passage is to take place by a greater number of colliers being permitted to be in any of the tiers than is allowed, as such an encroachment would be considered to be an obstruction not falling within the tacit exception of an unavoidable casualty; and it appearing that much of the confusion, and consequent impediments to the navigation in the Pools, proceed from a want of proper moorings for the colliers, the board require me to suggest that a representation upon the subject should be immediately made to the constituted authorities, so that proper moorings may be provided accordingly.

I am further instructed to state, that as the proceedings in question were instituted by the dock company with no other view than that of obtaining due protection for the commerce and shipping generally of the port of London, which have suffered materially from a disregard to the particular regulation referred to, and which was established for the improvement of the navigation of the river and the promotion of the trade of the metropolis, the board confidently hope that this important purpose will be advanced by a more efficient execution of the harbour-service, and thus render further complaint unnecessary.

I remain, Gentlemen, your obedient servant,

To the Harbour-masters of the Port of London. (signed) *John Hall*, Secretary.

A copy of this letter was, by order of the board, transmitted to the Lord Mayor, the Elder Brethren of the Trinity House, the Navigation and Port of London Committee, and to the Ship-owners' Society, for their information.

Appendix, No. 33.

RETURNS from the Registrar of the Coal-Market, relating to the COAL TRADE.

Office of Clerk and Registrar of the Coal-Market, 26 Feb. 1836.

No. 33. Coal Trade Returns.

To the Right Honourable Charles Poulett Thomson, Chairman of the Select Committee of the House of Commons on the Port of London.

Sir,

HAVING received from the Select Committee of the House of Commons on the Port of London, an Order bearing date the 17th inst., to lay before that Hon. Committee "A Return of the Regulations adopted by the Committee of Coal-owners, Factors, &c., for the sale and discharge of the cargoes of Coals, the appointing of Weighers of Coals on board of ships in the Port of London; setting forth the Authority under which such Committee has been appointed, the number of its Members, distinguishing the number of Factors, Coal-owners or Merchants; the terms, conditions and responsibilities upon which such Weighers have been appointed; the names, ages and residences of such Weighers, and whether any, and if any, which of them, were Meters under the old law, and now enjoy Pensions, setting forth the amount thereof and of the pay to each Weigher:

"A Return also of the Meters pensioned, not being employed as Weighers, their ages and residences, and the amount of Pensions to each, and setting forth the reasons for their not being preferably employed as Weighers:

"Also, a Return of the number of Coal Ships between Greenwich and London-bridge, usually requiring Weighers at one and the same time; the number of Tons of Coal that have been discharged within one day, and the same Ship, specifying whether into Craft or on Land, and the usual number of days a Collier of 300 Tons of Coals (having on board a cargo for sale) remains in the River, that is to say, from the day she arrives to the time of her departure for the North:

"Also, a Return of the number of Colliers in the Port of London discharging and waiting for turns, distinguishing the one from the other, during each week in the years 1834 and 1835; setting forth also the number of days the latter have usually been detained waiting for such turns, with a statement of the manner in which such turns are regulated:"

I beg to state, that the whole of the Returns required are totally unconnected with the duties of my office, and I have therefore no means of furnishing the information required. Since the passing of the Act 1 & 2 Will. 4, c. 76, the employment of weighers of coals in the Port of London is arranged between the coal-factors and coal-merchants, without control of the Corporation of London.

I am, Sir, your obedient servant,

James Pearsall, Clerk and Registrar.

Appendix, No. 34.

LETTER and RETURNS from Mr. *T. Gillespy* to the Chairman of the Board of Trade, respecting the COAL TRADE.

No. 34. Coal Trade Returns.

LETTER from Mr. *Thomas Gillespy* to the Right Honourable *C. P. Thompson*, Chairman of the Select Committee on the Port of *London*.

Coal Meters' Office, London,
14 March 1836.

Sir,

IN obedience to the Order of the Select Committee of the Honourable the House of Commons on the Port of London, dated the 17th February 1836, addressed to me as Clerk of the Coal Exchange, but which I only received on the 8th instant, I respectfully beg leave to state that I do not hold any such appointment, but am Secretary to the Office established by the Trade for providing and regulating the Weighers for the delivery of Coals in the River. I now therefore have the honour to enclose the Return called for, as far as this establishment can furnish the same.

I have, &c.
Thomas Gillespy.

— No. 34 *a*. —

A RETURN of the REGULATIONS adopted by the Committee of COAL-OWNERS, FACTORS, &c. for the Sale and Discharge of the Cargoes of Coals.

THE matter in which a reply is herein required is not within the cognizance of this office, which is established for the appointment and regulation of weighers for the delivery of such colliers as may apply for the same, and for providing weights, scales, &c. for the purpose.

— No. 34 *b*. —

A RETURN of the APPOINTMENT of the Weighers of Coals, on board of Ships in the Port of *London*, setting forth the Authority under which the Committee of Coal-owners has been appointed; the Number of its Members, distinguishing the Number of Factors, Coal-owners or Merchants.

SUCH weighers are appointed by this committee, consisting of nine coal buyers or merchants and nine factors or sellers, annually elected by the respective branches of the trade, at general meetings held for that purpose.

— No. 34 *c*. —

A RETURN of the TERMS, CONDITIONS and RESPONSIBILITIES upon which Coal-weighers have been appointed, the Names, Ages and Residences of such Weighers, and whether any, and if any, which of them were Meters under the Old Law and now enjoy Pensions, setting forth the Amount thereof, and of the Pay to each Weigher.

THE rules by which the weighers are governed are transmitted herewith, marked (A); also a list marked (B), containing the names, ages and residences of the weighers. Those marked with a cross were meters under the old law: but this committee have no cognizance of the pensions granted by the Corporation of the City of London. The pay of each weigher under the present establishment is 2 *d*. per ton upon all coals, for the weighing of which his services may be required.

(A).

REGULATIONS to be strictly conformed to by SHIP-METERS.

1. METERS, when unappointed, are to attend at the Meters'-office with their accounts, or for re-appointment to ships, daily, at nine o'clock in the morning, twelve o'clock at noon, a quarter past three in the afternoon; and, provided there is a Meters' list, at a quarter past six in the evening.

2. No Meter is to absent himself, either from the office or from the ship to which he has been appointed, without leave of the shipping-clerk, except in case of illness, of which early notice must be given at the office. When leave of absence is obtained, he must not quit his ship until another Meter arrives to relieve him.

3. No Meter shall depute any other Meter or person to do his duty for him; or weigh any coals, except from those ships which are entered at the Meters'-office; or use any other beams, weights, or scales, than those belonging to this office.

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4. Every Meter when appointed to a ship, must attend on board thereof from seven o'clock in the morning until five o'clock in the evening, during the months of February, March, April, May, June, July, August, September and October; and from seven o'clock in the morning until four o'clock in the afternoon during the months of November, December and January, unless informed by the lighterman that no more coals will be taken on that, or some other particular day.

5. Meters are empowered to work from sun-rise to sun-set, from the 1st of March to the 30th of September, inclusive; and from six o'clock in the morning to five o'clock in the evening, in the months of October and February, if required so to do.

6. No Meter shall deliver any coal, culm, or cinders, contrary to the turn-paper delivered to him, unless the consent of the buyers or their agents, whose turn it is to load, according to the said turn-paper, shall have been first signified to him in writing: and no Meter shall permit any coals to be unfairly worked.

7. No Meter shall deliver into any barge, or room of a barge, a less quantity than seven tons, or any other quantity than some multiple of seven tons, unless it be to finish the particular working of some buyer, or to clear the ship; nor shall he deliver any coals into any room of a barge having coals in it, or into any open barge, unless kept separate from any coals therein, except it be to make up to seven tons, or some multiple thereof, coals of the same name and description as those which he is delivering, the certificate of which shall be shown to him previous to his so doing; and if it shall happen that any lighterman or other person refuses to take the quantity of seven tons, or some multiple thereof, then the Meter shall not give any certificate for such quantity, not being seven tons, or some multiple of it, except it be to finish a particular working of some buyer, or to clear the ship. The above rule not to apply to canal or monkey-boats, worked in pairs, for which a special certificate shall be given according to the form posted in the Shipping-office.

8. Meters are to give certificates gratuitously of all coal, culm, or cinders delivered in conformity with the preceding regulations, when required so to do; the same to be an office certificate, in which the quantity and quality of the article delivered, with the buyer's name or names, shall be set forth in words at length, a complete copy of which shall be entered in the margin of the certificate book; the certificates given by the Meters to be witnessed by the master or mate of the ships.

9. Meters are to leave on board ship, and not to weigh to the buyer (unless required) the sweepings and way-coals in the clearing of a cargo, provided the quantity so left does not exceed seven and a half hundred weight, and not to allow large coals to be picked out for the ship's use, but that any quantity, if left, shall be a fair sample of the whole cargo.

10. Every Meter on the delivery of any quantity of coal, culm, or cinders, must immediately make an entry thereof in the book furnished to him from the office, and not in any other book or paper.

11. Meters, when required, must exhibit the turn-paper to the master and mate of the ship they are appointed to deliver, and to any person applying for a part of the cargo, and return the same to the office, with their account of the delivery.

12. If any Meter be obstructed in the discharge of his duty, he is forthwith to leave the ship, and report the circumstances to the shipping-clerk.

13. Every Meter shall deliver his short bill at the office, within two hours after the delivery of the cargo of any vessel above Greenwich, and his other papers as soon as possible.

14. No Meter shall be engaged in any branch of the coal trade, or be concerned, directly or indirectly, in any public-house, wine, spirit or beer business.

15. Every Meter shall diligently, faithfully, and impartially do his duty, favouring neither buyer nor seller. And if any shall be proved, to the satisfaction of the committee, to have received either bribe, fee or reward, he shall be peremptorily dismissed: and if he be proved to have given too much or too little weight, or in any other manner to have misbehaved, he shall be punished at the discretion of the committee, by dismissal, fine, suspension or reprimand.

16. Every Meter shall, if required, make out and deliver to any buyer or buyers, a general bill or account of coals delivered out of any ship or vessel on the account of any such buyer or buyers; and for the making out of each and every such bill or account, the following rate or charge may be made, and no more:—the sum of 3 *d.* if the quantity specified in the bill or account be less than 50 tons; the sum of 6 *d.* if it be 50 tons and under 100 tons; the sum of 9 *d.* if it be 100 tons and under 200 tons, and if it be 200 tons, or any larger quantity, the sum of 1 *s.*

17. That the Meter who clears the ship must state in the front of the short bill, the factor's note and the back of the long bill, full particulars of baulked days and travelling expenses to which himself or any other Meter is entitled. Any Meter neglecting the same will lose all claim thereto.

18. Every Meter to deliver to the captain or mate of the ship to which he is appointed, the printed notice, respecting the ship's responsibility for the proper care of the weights and scales.

I, James Whitehead, having been appointed a ship coal-meter, do hereby promise and declare, that I will conform to the foregoing regulations, and that I will strictly obey all other orders and regulations which may be made by the committee appointed from time to time for conducting the business of the Meters'-office.

London, 14 March 1836. (signed) *James Whitehead.*

Witness, *Thomas Gillespy.*

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Coal Trade Returns.

(B.)—A LIST of the SHIP-METERS, their Ages and Residence.

Those marked (×) were Meters under the City.

NAME.		Age.	RESIDENCE.
			No.
1. James Whitehead	×	59	10, Cannon-street, Commercial-road.
2. Philip Smith	×	54	14, Crown-row, Mile-end.
3. Benjamin Gay	×	59	3, Cleveland-street, Mile-end.
4. Phineas Pound	×	58	41, Watney-street, Commercial-road.
5. John M'Cann	×	46	28, Holmes-street, ditto.
6. Alfred Hancock	×	55	9, Redman's-row.
7. Thomas James Ventris	×	56	1, Printers'-place, Bermondsey.
8. Samuel Woodward	×	58	6, John-street, Commercial-road.
9. Frederick William Zurhorst	×	53	31, Beaumont-square, ditto.
10. George Jackson	×	46	12, Perrin-street, Cambridge-road.
11. Benjamin Bates Cowell	×	52	22, Great Prescott-street.
12. Thomas Hill	×	56	104, Lucas-street, Commercial-road.
13. Horatio Richard Houlgate	×	56	100, High-street, Shadwell.
14. Benjamin Foster	×	52	Devonshire Cottage, Commercial-road.
15. Joseph Webb	×	46	11, Assembly-row, Mile-end.
16. James Lavender	×	39	7, Lower John-street, ditto.
17. Edward Stocks	×	38	15, Holland-street, Bankside.
18. Harry H. Hale	×	55	5, White-horse-lane, Stepney.
19. Henry Hemsley	×	34	14, New Rutland-street, Mile-end.
20. Samuel William Freeman	×	49	30, Paradise-street, Rotherhithe.
21. Stephen F. Hale	×	37	110, Lucas-street, Commercial-road.
22. Joseph Collyer	×	44	7, Arbour-street, ditto.
23. Henry Clode	×	47	5, Black-horse-place, Deptford.
24. James Craney	×	57	9, Watney-street, Commercial-road.
25. James Jacks	×	36	2, Lower Shadwell-street.
26. Nicholas Smith	×	44	59, Paradise-street, Rotherhithe.
27. Edward S. Spencer	×	47	4, Weymouth-place, Kent-road.
28. George Roberts Frieake	×	35	5, Wellington-place, Stepney.
29. John Day	×	47	3, Hervey-street, Commercial-road.
30. William Burr	×	40	58, Sun-street, Bishopsgate.
31. Thomas Skegg Driver	×	50	17, Beer-lane, Tower-street.
32. Henry Ledger	×	52	12, Trafalgar-square, Stepney.
33. James Betts	×	42	1, Surrey-grove, Kent-road.
34. Michael Knill	×	48	4, Oxley-place, Bermondsey.
35. George F. Denman	×	38	5, Hemsley-terrace, Hackney.
36. Edward M. Perriman	×	41	4, Augusta-place, Rotherhithe.
37. Jonathan Tilley	×	36	7, Hanover-place, Bermondsey.
38. George T. Coleman	×	40	27, Redman's-row, Stepney.
39. John Johnson	×	45	9, Holmes-street, Commercial-road.
40. John William Neverd	×	31	Garford-street, Limehouse.
41. Charles J. Hurcombe	×	38	64, Lower Shadwell.
42. Harry Gibbons	×	43	1, Potter's-fields, Bermondsey.
43. Thomas Jones	×	43	63, Broad-street, Ratcliffe.
44. Thomas James Ventris, jun.	×	35	68, Paradise-street, Rotherhithe.
45. Benjamin Cordell	×	46	20, May's-buildings, Strand.
46. John Anderson	×	44	4, Sidney-terrace, Commercial-road.
47. Thomas Smart	×	47	22, Sidney-street, ditto.
48. Peter Martin	×	47	Oak-place, Rotherhithe.
49. Philip T. Hurlock	×	46	1, Margrave-buildings, Shadwell.
50. Francis Henshaw	×	37	79, Sun-street.
51. Richard Johnson	×	49	26, Princes'-square, Mile-end.
52. William Ledger	×	31	12, York-place, Commercial-road.
53. John Wales		42	84, Lucas-street, ditto.
54. William Ward		30	9, Mill-place, Limehouse.
55. Richard John Scott		25	36, Bankside.
56. George Rix		39	2, Seales'-terrace, Hackney-road.
57. John Lindsay		43	1, Holmes street, Commercial-road.
58. Silvanus Grimes		37	22, Patterson-street, Stepney.
59. Thomas Marshall		39	41, Heath-street, Commercial-road.
60. George Comfort		31	16, Bedford-place, Rotherhithe.
61. George James Armstrong		43	4, Griffin-street, Shadwell.
62. Robert Fox		30	Ivy Cottage, Mile-end.
63. Adolphus C. Bowler		43	10, Chandler's-place, Kent-road.
64. Charles Ohren		41	2, York-street East, Commercial-road.
65. James E. Maddox		35	7, Mercer's-place, ditto.
66. James Butler		34	2, Cannon-street-road, ditto.
67. John William Turnbridge		30	45, Charles-street, ditto.
68. Robert Ceely		43	Fountain-court, Bishopsgate.
69. George Clark		53	31, Beaumont-buildings, Commercial-road.
70. Samuel R. White		36	7, Garden-street, Stepney.
71. John Carmichael		29	14, Bath-terrace, Newington.
72. George Hall		45	2, Prospect-place, Commercial-road.
73. William Hawkins		38	8, Albion-street, Rotherhithe.
74. John Duffield		46	25, John-street, Commercial-road.

(continued)

No. 34. Coal Trade Returns.

	NAME.		Age.	RESIDENCE.
				No.
75.	James Ward Warren		39	11, Grove-road, Mile-end.
76.	George Kell		36	4, Deane-street, Shadwell.
77.	George Betts		34	1, Surrey-grove, Kent-road.
78.	Henry Wright		35	12, Bedford-place, Commercial-road
79.	William Henry Newman		27	8, John-street, Stepney.
80.	James F. Landry		35	3, Crombers-row, ditto.
81.	James Gregson		33	21, Suffolk-street, Commercial-road.
82.	Philip R. Wells		35	1, Oak Cottages, Rotherhithe.
83.	John Peter Laroch		40	93, Lucas-street, Commercial-road.
84.	James Barnes		35	24, Heath-street, ditto.
85.	Thomas Shore		39	10, Cleveland-street, Mile-end.
86.	Christopher Bearpark		29	8, Beaumont-row, ditto.
87.	George Molton		35	49, Clarence-street, Rotherhithe.
88.	Henry Colin Jacks		32	2, Lower Shadwell.
89.	Robert Bennett		33	19, Bermuda-street, Commercial-road.
90.	John Hawkes Tatton		37	18, Gill-street, ditto.
91.	James Jackson		42	15, Hannibal-road, Stepney.
92.	Samuel B. Folo		35	10, Heath-street, Commercial-road.
93.	John Turner Rome		32	54, Featherstone-street, City-road.
94.	Henry William Richardson		37	3, Swan-lane, Rotherhithe.
95.	Robert John Clotworthy		37	6, Belvidere, Cambridge-road.
96.	George Trufit		29	22, Patterson-street, Commercial-road.
97.	Henry Flockhart		39	12, Marine-street, Bermondsey.
98.	Henry Winckworth		40	4, Stepney-causeway.
99.	Samuel Holland		42	11, Jubilee-place, Commercial-road.
100.	Thomas Yates		31	2, Shepperton-place, Islington.
101.	Thomas Futton		25	12, Minerva-terrace, ditto.
102.	William Storer		43	94, Ratcliffe-highway.
103.	Nathaniel P. Giles	×	31	Deptford.
104.	Ambrose Deane		43	8, Oxford-place, Stepney.
105.	David Hughes		43	21, Stracey-street, Rotherhithe.
106.	Joseph Bell	×	55	47, Princes-street, ditto.
107.	William Worton		37	6, Span's-buildings, Pancras.
108.	Daniel John Cole		32	24, Paterson-street, Commercial-road.
109.	Henry Joseph Edgley		38	52, Clarence-street, Rotherhithe.
110.	Joseph Gandell	×	57	34, Arbour-square, Commercial-road.
111.	Thomas Gray		43	1, Knaith-terrace, Mile-end.
112.	Anthony Anderson		36	71, Lucas-street, Commercial-road.
113.	Francis Patterson		42	8, Cleveland-street, Mile-end.
114.	John Cross		42	5, Swan-lane, Rotherhithe.
115.	William Meen		35	1, Penton-place, Walworth.
116.	Robert Canavan		38	15, Beaumont-row, Mile-end.
117.	Richard Manning		37	2, Prospect-place, Commercial-road.
118.	William Upton		38	20, Sydney-place, ditto.
119.	Arthur White		31	64, Lower Shadwell.
120.	Benjamin Veall		28	5, South-grove, Peckham.
	EXTRA METERS:			
121.	John Russell	×	43	4, Norfolk-street, Commercial-road.
122.	Henry Powell		30	71, Lucas-street, ditto.
123.	Henry Ledger, jun.		30	12, Trafalgar-square, ditto.
124.	George Dearing, jun.		26	2, Heath-street, ditto.
125.	Robert Sands		35	4, Swan-lane, Rotherhithe.
126.	Joseph John Newman		35	12, Sidney-street, Commercial-road.
127.	William Delmonte		38	1, Thornton-street, Bermondsey.
128.	Henry Splidt Webb		26	42, Church-row, Commercial-road.
129.	Alexander Francis Ree		29	15, Union-row, Bethnal-green.
130.	Thomas White, jun.		34	23, Paterson-street, Stepney.
131.	Charles Wright		43	32, Little Moor-fields.
132.	Thomas Upton, jun.		32	61, Dempsey-street, Commercial-road.
133.	Robert Ranwell		27	51, Stracey-street, ditto.
134.	Johnson Hart		39	6, Union-place, Stepney.
135.	Francis Chatfield		40	3, Grosvenor-street, Commercial-road.
136.	James Anderson		30	3, George-row, Bermondsey.
137.	Thomas John Blackwell		36	4, Union-row, Stepney-green.
138.	John Thompson		40	137, Drury-lane.
139.	William Sadler		40	3, William-street, Cannon-street-road.
140.	Thomas Pullinger		30	16, Jamaica-street, Commercial-road.
141.	Richard Howard		29	13, York-place, Stepney.
142.	Henry Kemp		26	7, Beaumont row, Mile-end.
143.	Joseph Samuel Partridge		26	24, Park-street, Southwark.
144.	Thomas Reed		37	44, Jamaica-street, Commercial-road.
145.	Thomas Richmond		38	9, Stepney-green-terrace.
146.	William Light		35	4, Albion-street, Rotherhithe.
147.	James Walker		39	24, Clarence-street, ditto.
148.	Joseph Shelburn Parker		30	28, Lower John-street, Commercial-road.
149.	George Coomber		25	1, Lower Shadwell.
150.	George King	×	57	7, Printer's-place, Bermondsey.

Coal-Meters' Office, London, 14 March 1836 — *Thomas Gillespy.*

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No. 34. Coal Trade Returns.

— No. 34 *d.* —

A RETURN of the METERS Pensioned not being employed as Weighers, their Age and Residences, and the Amount of Pensions to each, and setting forth the Reasons for their not being preferably employed as Weighers.

THIS committee have no means of answering the former part of this question, and with reference to the latter part, many of the old meters who made application, and who were deemed best qualified, were among the first appointments of weighers to this establishment.

— No. 34 *e.* —

A RETURN of the Number of COAL SHIPS between *Greenwich* and *London Bridge*, usually requiring Weighers at one and the same time.

THE number of ships applying to this office for weighers varies very much from time to time, and including the ships at work, is from 100 to 200, occasionally more or less, but it is not in the power of this establishment to ascertain precisely, at the time of application, how many of such ships are at or above Greenwich.

— No. 34 *f.* —

A RETURN of the Number of TONS of COALS that have been Discharged within one Day, and the same Ship, specifying whether into Craft or on Land, and the usual Number of Days a Collier of 300 Tons of Coals (having on Board a Cargo of Coals) remains in the River; that is to say, from the Day she arrives to the time of her Departure for the North.

THE contract between the buyer and the seller requires that not less than 49 tons per diem be delivered from each ship, but more than double that quantity is frequently discharged, a very small proportion of which is ever delivered on land, but nearly the whole into craft or barges. A ship of 300 tons consequently must be discharged within seven days from the appointment of a weigher by this office, though frequently cleared in less time.

— No. 34 *g.* —

A RETURN of the Number of COLLIERS in the Port of *London*, Discharging and Waiting for Turns, distinguishing the one from the other, during each Week in the Years 1834 and 1835, setting forth also the Number of Days the latter have usually been detained Waiting for such Turns, with a Statement of the manner in which the Turns are regulated.

Week ending Monday.	Ships waiting for Meters.	Meters unemployed.	Ships at Work.	Week ending Monday.	Ships waiting for Meters.	Meters unemployed.	Ships at Work.
1834:				1834:			
January 6	1	None	150	July 7	None	66	84
— 13	None	25	125	— 14	-	57	93
— 20	-	98	52	— 21	-	48	102
— 27	-	110	40	— 28	-	64	86
February 3	-	16	134	August 4	-	30	120
— 10	-	72	78	— 11	-	42	108
— 17	-	88	62	— 18	-	8	142
— 24	18	None	150	— 25	-	16	134
March 3	None	9	141	Sept. 1	-	24	126
— 10	3	None	150	— 8	-	16	134
— 17	None	19	131	— 15	-	35	115
— 24	-	19	131	— 22	-	4	146
— 31	-	72	78	— 29	-	23	127
April 7	-	44	106	October 6	-	23	127
— 14	-	40	110	— 13	-	45	105
— 21	-	131	19	— 20	-	None	150
— 28	-	60	90	— 27	20	-	150
May 5	-	42	108	Nov. 3	18	-	150
— 12	-	90	60	— 10	None	16	134
— 19	-	40	110	— 17	-	None	150
— 26	-	53	97	— 24	8	-	150
June 2	-	70	80	Dec. 1	None	1	149
— 9	-	98	52	— 8	-	37	113
— 16	-	93	57	— 15	-	None	150
— 23	-	73	77	— 22	-	34	116
— 30	-	57	93	— 29	4	None	150

(*continued*)

No. 34. Coal Trade Returns.

Week ending Monday.	Ships waiting for Meters.	Meters unemployed.	Ships at Work.	Week ending Monday.	Ships waiting for Meters.	Meters unemployed.	Ships at Work.
1835:				1835:			
January 5	None	20	130	July 6	None	55	95
— 12	6	None	150	— 13	- -	43	107
— 19	None	52	98	— 20	- -	44	106
— 26	- -	12	138	— 27	- -	41	109
February 2	- -	37	113	August 3	- -	50	100
— 9	- -	22	128	— 10	- -	36	114
— 16	- -	26	124	— 17	- -	37	113
— 23	- -	26	124	— 24	- -	45	105
March 2	- -	6	144	— 31	- -	47	103
— 9	- -	5	145	Sept. 7	- -	49	101
— 16	- -	15	135	— 14	- -	46	104
— 23	- -	23	127	— 21	- -	10	140
— 30	- -	6	144	— 28	- -	15	135
April 6	- -	28	122	October 5	13	None	150
— 13	- -	46	104	— 12	17	- -	150
— 20	- -	56	94	— 19	54	- -	150
— 27	- -	18	132	— 26	77	- -	150
May 4	- -	25	125	Nov. 2	55	- -	150
— 11	- -	19	131	— 9	92	- -	150
— 18	- -	56	94	— 16	98	- -	150
— 25	- -	74	76	— 23	57	- -	150
June 1	- -	62	88	— 30	26	- -	150
— 8	- -	65	85	Dec. 7	None	6	144
— 15	- -	55	95	— 14	26	None	150
— 22	- -	50	100	— 21	51	- -	150
— 29	- -	47	103	— 28	111	- -	150

It is necessary to observe, that the above Return contains the number of colliers for which the parties applied for weighers from this office. Of those discharging their cargoes without weighing, or by other weighers, this office has no means of stating particulars.

The number of ships usually cleared each day by the weighers of this establishment is about 25 on the average. The ships are furnished with weighers in order of application, after the sale of the cargoes, whether for public bodies or private individuals, and without favour or preference, with the exception of coals for Government, which obtain weighers in preference to all others.

Coal-Meters' Office,
14 March 1836.

Thomas Gillespy.

Appendix, No. 35.

No. 35. Number of Tons of Coals Imported.

RETURN of the Number of Tons of Coals Imported into the Port of *London*, during the Years 1825, 1830 and 1835.

	Coal, Cinders and Culm brought Coastwise into the Port of London.
	Tons.
Year 1825	1,856,606
— 1830	2,079,275
— 1835	2,298,812

Inspector General's Office, Custom-House, London,
4 March 1836.

William Irving,
Inspector-General of Imports and Exports.

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Appendix, No. 36.

No. 36.
Construction of Skiffs and Wherries.

NEW BYE-LAWS made and recommended by the Court of Master, Wardens and Assistants of the Company of Watermen and Lightermen of the River *Thames*.

1. That the burthen, size and dimensions of a skiff to carry eight persons shall be as follows: that is to say, the length of the keel eighteen feet at least, the extreme breadth in the midships five feet four inches at least, the depth in the midships two feet at least, the breadth of the floor at third-lands in the midships of the state-room three feet two inches at least, the rise of the floor at third-lands in the midships of the state-room not to exceed four inches, the breadth of the floor at third-lands at the timber on the foreside of the back-board thwart two feet ten inches at least, the rise of the floor at third-lands at the timber on the foreside of the back-board thwart not to exceed five inches and the half of another inch, the breadth of the floor at third-lands at the timber on the foreside of the spray-thwart two feet ten inches at least, and the rise of the floor at third-lands at the timber on the foreside of the spray-thwart not to exceed six inches; and such skiff shall be of the burthen of two tons at least.

2. That the burthen, size and dimensions of a skiff to carry six persons shall be as follows: that is to say, the length of the keel sixteen feet at least, the extreme breadth in the midships five feet four inches at least, the depth in the midships one foot eleven inches at least, the breadth of the floor at third-lands in the midships of the state-room three feet one inch at least, the rise of the floor at third-lands in the midships of the state-room not to exceed four inches, the breadth of the floor at third-lands at the timber on the foreside of the back-board thwart two feet seven inches at least, the rise of the floor at third-lands at the timber on the foreside of the back-board thwart not to exceed five inches of the breadth of the floor at third-lands at the timber on the foreside of the spray-thwart two feet nine inches at least, and the rise of the floor at third-lands at the timber on the foreside of the spray-thwart not to exceed six inches and a quarter of another inch; and such last-mentioned skiff shall be of the burthen of one ton and a half of another ton at least.

3. That the burthen, size and dimensions of a skiff to carry four persons shall be as follows: that is to say, the length of the keel fourteen feet at least, the extreme breadth in the midships five feet at least, the depth in the midships one foot ten inches at least, the breadth of the floor at third-lands in the midships of the state-room two feet eight inches at least, the rise of the floor at third-lands in the midships of the state-room not to exceed four inches, the breadth of the floor at third-lands at the timber on the foreside of the back-board thwart two feet four inches at least, the rise of the floor at third-lands at the timber on the foreside of the back-board thwart not to exceed four inches and the half of another inch, the breadth of the floor at third-lands at the timber on the foreside of the spray-thwart two feet five inches at least, and the rise of the floor at third-lands at the timber on the foreside of the spray-thwart not to exceed five inches and the half of another inch: and such last-mentioned skiff shall be of the burthen of one ton at least.

PLAN of New WHERRY recommended in contradistinction to the Wherry proposed by the Waterman's Company, according to their amended Bye-law.

Dimensions of square-sterned wherries to carry eight, six, and four persons, with twelve inches free-board to top of washstreak.

Price of each wherry built of good English oak, including a back-board and rudder, iron-work included, a pair of skulls, boat-hook, staff, and two coats of paint.

First size to carry eight persons, with 12-inch free-board, the length of the keel to be 18 feet, extreme length 23 feet 6 inches; extreme breadth, 4 feet 9 inches; depth at main thwart, 1 foot 9 inches; depth top of washstreak, 2 feet; breadth of stern, 2 feet 5 inches; breadth of floor middle of state-room on the third land, 3 feet; rise of ditto at the same land 3½ inches; breadth of floor foreside of main thwart, 2 feet 10 inches; rise of floor same land, 4 inches; breadth of floor foreside of spray-thwart, 2 feet; rise of floor same land, 8 inches; breadth of floor foreside of back-board thwart, 2 feet 9 inches; rise of floor same land, 4½ inches; distance from outside of stern to fore-edge of back-board thwart, 5 feet 6 inches; distance from top of stem to after-edge of main thwart, 11 feet 3 inches; burthen, 2 tons; length of state-room, 6 feet 10 inches.

Price - - - £.24.

Second size to carry six persons, with 12-inch free-board; the length of keel to be 17 feet 6 inches; extreme length, 23 feet; breadth, 4 feet 8 inches; depth at main thwart top of washstreak, 1 foot 11 inches; depth at main thwart, 1 foot 8 inches; breadth of stern, 2 feet 3 inches; breadth of floor middle of state-room on the third land, 2 feet 10 inches; rise of floor at the same land, 3½ inches; breadth of floor foreside of main thwart, 2 feet 8½ inches; rise of floor at the same land, 4 inches; breadth of floor, foreside of spray thwart, 1 foot 11 inches; rise of floor at the same land, 8 inches; breadth of floor foreside of back-board thwart, 2 feet 7½ inches; rise of floor at the same land, 4½ inches; distance from outside of stern to fore-edge of back-board thwart, 5 feet 4 inches; distance from top of stem to after-edge of main thwart, 11 feet; length of state-room, 6 feet 9 inches; burthen, 1½ tons.

Price - - - £.23.

Third size to carry four persons, with 12 inches free-board, the length of the keel to be 17 feet; extreme length 22 feet 6 inches; breadth, 4 feet 7 inches; depth at main thwart, 1 foot 7 inches; depth on the top of washstreak, 1 foot 10 inches; breadth of stern, 2 feet 1 inch; breadth of floor in middle of state-room on the third land, 2 feet 8 inches; rise of floor

No. 36. Construction of Skiffs and Wherries.

floor on the same land, 3½ inches; breadth of floor on the foreside of the main thwart, 2 feet 7½ inches; rise of floor on the same land, 4 inches; breadth of floor on the foreside of the spray thwart, 1 foot 10 inches; rise of floor on the same land, 8 inches; breadth of floor on the foreside of the back-board thwart, 2 feet 6½ inches; rise of floor on the same land, 4½ inches; distance from the outside of the stern to the fore-edge of the back-board thwart, 5 feet 2 inches; distance from the top of stem to the after-edge of main thwart, 10 feet 10 inches; length of state-room, 6 feet 7 inches; burthen, 1 ton.

Price - - - £.22.

Appendix, No. 37.

No. 37. Wherries and Boats carrying Passengers.

A RETURN showing the Number of LICENCES granted by the Corporation of *Trinity House*, for WHERRIES, BOATS, &c., for the carrying of PASSENGERS, in force on the 1st day of January last, distinguishing the Number above Bridge from those below Bridge, under the Authority of the Act of the 7 & 8 Geo. 4, distinguishing the Licences in Classes, according to the Dimensions of the Wherries, Boats, &c., and the Number of Passengers permitted to be carried, according to the several Classes, provided for by the 4th, 5th and 6th sections of the Bye-laws of the Waterman's Company:—And, A RETURN also of the Number of LICENCES refused to be granted to WHERRIES or BOATS, above the Dimensions in question, between 1820 and 1835, inclusive, with the Reasons thereof.

NUMBER of Licences for Wherries to carry six Passengers - - - -	94
Number of Licences for Wherries to carry four Passengers - - -	9
TOTAL - - -	103

The following are, without exception, the terms of the Licences, viz. "To row in a Wherry with Oars or Sculls up and down the River of Thames between Gravesend and Windsor."

No Licences have been refused for boats of larger dimensions than those specified in the 4th section of the Bye-laws referred to in the Order, but in several instances the dimensions of boats which have been licensed to carry six persons, would have justified the issue of licences to carry eight persons, and those for four to carry six persons.

N.B.—The provisions made in respect of the dimensions of the wherries, boats, &c., and the number of passengers permitted to be carried, as they apply to the watermen licensed by the Trinity-House, are contained in the Rules and Bye-laws made by this Corporation for their government, pursuant to the Act of the 7 & 8 Geo. 4, c. 75, s. 71.

Trinity House, London, 3 May 1836. } *J. Herbert*, Secretary

Appendix, No. 38.

No. 38. Vessels broken up.

ACCOUNT of VESSELS broken up in the Port of *London*, from March 1834 to April 1836 inclusive.

SHIP.	MASTER.	Tons.	Port belonging to.	When broken up.
Canning	Baylis	1,326	London	1834.
Lady Melville	Shepherd	1,350	ditto	–
London	Smith	1,332	ditto	–
Lowther Castle	Harris	1,507	ditto	–
Marquis Huntley	Hine	1,348	ditto	–
Waterloo	Blakely	1,325	ditto	–
Warren Hastings	Sandys	1,068	ditto	February 1835.
Sir David Scott	Ward	1,440	ditto	March –
Cretan	Gulliver	356	ditto	April –
Dunira	Hamilton	1,378	ditto	May –
Macqueen	–	1,359	ditto	March 1836.
Duchess of Athol	–	1,356	ditto	March –
Lord Melville	–	214	Newcastle	April –
William Fairlie	–	1,380	London	1835.
Farquarharson	–	1,407	ditto	June 1836.
St. George	Nutting	310	ditto	Sept. 1835.
Sarah	Russell	293	ditto	– –
		18,749		

George Bayley, Surveyor.

Appendix, No. 39.

No. 39. Bye-laws and Regulations.

A COPY of the BYE-LAWS and REGULATIONS, if any, established by the Court of Aldermen, under the Authority of the 32d Section of the Coal Act, 1 & 2 Will. 4, c. 76.

No Bye-laws and Regulations have been established by the Court of Lord Mayor and Aldermen under the authority of the 32d section of the Coal Act of the 1 & 2 Will. 4, c. 76, the provisions of the Act having been hitherto deemed sufficient.

Henry Woodthorpe, Town-clerk.

Appendix, No. 40.

RETURNS of the Number of Coroners' Inquests held upon the Bodies of Persons Drowned or Found Drowned in the River Thames, during the Years 1834 and 1835; and also upon the Bodies of those who have died in consequence of Accidents or Injuries sustained whilst Navigating such River, distinguishing the one from the other; with an Abstract of the Nature of the Accidents, separating and classifying those produced by the Effects of Steam Navigation, the Place or Places where they occurred, and the Verdicts of the Juries respectively.

(1.)—County of *Middlesex*, by *Thomas Stirling*, Esq.

				Verdicts of the Juries.
		Suicides:		
1834: Jan. 11	1	Ann Penny	found in the River Thames, near Isleworth	drowned herself, deranged.
1835: Jan. 12	1	Samuel Palmer	ditto ditto near Fulham	drowned himself, deranged.
		Found Drowned:		
1834: July 26	1	a man unknown	found in the River Thames, near New Brentford	found drowned; by what means he came into the water is to the jurors unknown.
Aug. 16	2	Esther Chandler	ditto ditto near Old Brentford	ditto.
Nov. 13	3	George Bond	ditto ditto near Chelsea	ditto.
1835: July 11	1	a man unknown	ditto ditto near Hammersmith	ditto.
Aug. 18	2	Thomas Nettlefold	ditto ditto near Hampton	ditto.
Oct. 13	3	Charles Wheeler	ditto ditto near Chiswick	ditto.
Nov. 25	4	a man unknown	ditto ditto near Isleworth	ditto.

		Accidentally Drowned:		Places.	Verdicts.
1834: April 25	1	George Cox, an infant.	found in the River Thames, near Fulham.	fell into the river while drawing water.	at Fulham	accidentally drowned.
June 10	2	John Cameron	ditto, near Hampton Court.	drowned while bathing	at Hampton Court.	ditto.
July 22	3	W. Vers, an infant	ditto, near Staines	fell into the river	at Staines	ditto.
— 29	4	William Tomkins	ditto, near Hammersmith.	drowned while bathing	at Hammersmith	ditto.
Aug. 4	5	G. Gutteridge	ditto, near Twickenham.	ditto ditto	at Kingston	ditto.
— 13	6	Charles West	ditto, near Chelsea	ditto ditto	at Lambeth	ditto.
1835: Feb. 23	1	William Payne	ditto, near Chelsea	fell by his foot slipping off the gunwhale of a moored barge.	at Chelsea	ditto.
Mar. 10	2	William Scotford	ditto, near Chelsea	fell, in a fit, into the river.	at Richmond	ditto.
June 10	3	Henry Stride	ditto, near Isleworth	drowned while bathing	at Isleworth	ditto.
Aug. 5	4	I. Fennell, infant	ditto, near Fulham	ditto ditto	at Fulham	ditto.
Nov. 19	5	Cath. Cornish	ditto, near New Brentford.	fell into the river while drawing water.	at New Brentford	ditto.
		Drowned whilst Navigating the River Thames:			
1834: May 28	1	Fred. Thompson	found in the River Thames, near Fulham.	sailing with another person in a boat which heeled, shipped water and sunk.	near Fulham	ditto.
1835: July 28	1	James Atkinson	ditto, near Chelsea	fell out of a wherry which struck against one of the piers of Battersea-bridge.	at Chelsea	ditto.
Sept. 26	2	William Deville	ditto, near Hammersmith.	alone in a wherry, and fell overboard.	at Hammersmith	ditto.

Summary.	1834.	1835.	
Suicides	1	1	
Found drowned (by what means unknown)	3	4	
Drowned, by various accidents	6	5	
Drowned whilst navigating the River Thames	1	2	
Died in consequence of accidents or injuries sustained whilst navigating such river (otherwise than by drowning).	none.	none.	
Drowned by accidents produced by the effects of steam-navigation	none.	none.	
	11	12	Total 23

77, Chancery Lane, 25 February 1836.

Thomas Stirling, Coroner.

(2.)—County of *Middlesex* (Eastern District), by *W. Baker*, Esq.

DATE.	No. of Inquests.	Number of Bodies and Names.	No.	Found Drowned, cause unknown.	No.	Accidents from Steam-boats.	No.	Other Accidents; Nature of Accident, whilst Navigating, &c.	Place of Accident.	VERDICTS.
1834:										
Jan. 6	5	Edward Moon	-	-	-	-	1	- - falling overboard accidentally.	Collier Pool off Shadwell	accidental death by drowning.
6	6	Eleanor Shaw	1	found drowned	-	-	-	-	Folly-house, Blackwall	found drowned.
11	10	Joseph Tate	-	-	-	-	1	- - accidental fall from rigging.	Stone-stairs, Ratcliffe	accidental death from drowning.
18	26	man unknown	1	found drowned	-	-	-	-	Wapping Old-stairs	found drowned.
25	33	Harriet Cliver	1	found drowned	-	-	-	-	Stone-stairs, Ratcliffe	found drowned.
Feb. 6	35	John Whip	-	-	-	-	1	fall from a ship	East Smithfield, Aldgate	accidental death by drowning.
14	57	male unknown	1	found drowned	-	-	-	-	Blackwall	found drowned.
19	64	James Slee	-	-	-	-	1	- - fall from a boat by John Waters incautiously pushing it off.	Shadwell	- - manslaughter against John Waters.
24	67	William Campbell	1	found drowned	-	-	-	-	Lower Hermitage Tier	found drowned.
Mar. 3	77	John Joseph Gilder	1	found drowned	-	-	-	-	near Horsleydown	found drowned.
6	83	James Nicholas	1	found drowned	-	-	-	-	off Clove's-wharf, Ratcliffe	found drowned.
14	86	James Livio	1	found drowned	-	-	-	-	Wapping	found drowned.
14	87	James Spencer	1	found drowned	-	-	-	-	Ratcliffe-cross	found drowned.
17	88	Martin Willams	1	found drowned	-	-	-	-	Folly-house, Blackwall	found drowned.
19	93	female unknown	1	found drowned	-	-	-	-	Ratcliffe-cross	found drowned.
April 8	118	female child	1	found drowned	-	-	-	-	Bell-wharf, Shadwell	found drowned.
14	126	Henry Wall	-	-	-	-	1	- - fall from a boat in skulling.	Somerset-house	accidental death from drowning.
16	131	male person	1	found drowned	-	-	-	-	Shadwell	found drowned.
May 5	144	Thomas Foster	-	-	-	-	1	- - fall from a boat by slip of an oar.	Limehouse-hole, Poplar	accidental death from drowning.
8	145	Thomas Cowsenter	1	found drowned	-	-	-	-	Wapping	found drowned.
13	152	William Green	1	found drowned	-	-	-	-	Limehouse	found drowned.
12	154	William Rope	1	found drowned	-	-	-	-	Poplar	found drowned.
24	165	Richard Hill	-	-	-	-	1	fall from a boat	Irongate	accidental death by drowning.
June 5	179	Michael Morgan	-	-	-	-	1	fall from a ship	Shadwell	accidental death from drowning.
9	183	John Watts	-	-	-	-	1	fall from a wharf	East Smithfield	accidental death from drowning.
11	187	female unknown	1	found drowned	-	-	-	-	Blackwall-stairs	found drowned.
17	193	male child unknown	1	found dead	-	-	-	-	Limehouse-hole	found dead.
25	202	George Poole	1	found drowned	-	-	-	-	- - opposite London Docks, Wapping.	found drowned.
23	205	William Rochford	1	found drowned	-	-	-	-	- - opposite Regent's Canal entrance.	found drowned.
26	210	Daniel Sullivan	-	-	1	- - accidental death from a fall from a boat in avoiding a steam-boat.	-	-	opposite Lambeth-palace	accidental death from drowning.
27	211	Daniel Robert Halson	-	-	1	- - accident from a steam-boat creating a surge whilst bathing.	-	-	Blackwall-stairs	accidentally drowned bathing.

27	212	Thomas Hodges	-	-	1	- - upset of boat by steam-boat passing at a distance.	-	Woolwich	accidental death by drowning.
July 9	229	Thomas Synnott	-	-	-	1	fall from a vessel	Wapping	accidental death from drowning.
12	234	Henry Smith Holchon	-	-	-	1	fall from a barge	off Narrow-st., Limehouse	accidental death from drowning.
14	238	male person unknown	-	-	-	1	fall from a boat	off Ratcliffe	accidental death by drowning.
16	243	William Nestfield	1	found drowned	-	-	-	Shadwell	found drowned.
Aug. 5	266	male person unknown	1	found drowned	-	-	-	Ratcliffe and Limehouse	found drowned.
6	267	Matthew Kennedy	-	-	-	1	fall from a boat	Limehouse	accidental death by drowning.
13	275	John Kelly	-	-	-	1	fall from a gangway	Hermitage-wharf	accidentally drowned.
19	282	male person unknown	1	found drowned	-	-	-	Shadwell	found drowned.
21	290	male person unknown	1	found drowned	-	-	-	off Limehouse	found drowned.
21	294	a male person	1	found drowned	-	-	-	Blackwall	found drowned.
Sept. 1	308	Thomas Watson	1	found drowned	-	-	-	Shadwell	found drowned.
1	313	a male person	1	found drowned	-	-	-	Ratcliffe	found drowned.
1	323	Robert Lydell	-	-	-	1	fall from a ship	St. Katharine	accidental death from drowning.
23	326	William Frogley	-	-	-	1	fall from a barge	Limehouse	accidentally drowned.
24	332	John Reeve	1	found drowned	-	-	-	Shadwell	found drowned.
Oct. 9	344	a male person	1	found drowned	-	-	-	Shadwell	found drowned.
9	346	William Shutt	-	-	-	1	fall from a boat	Wapping	accidental death from drowning.
Nov. 3	382	Daniel Nielman	-	-	-	1	fall from a vessel	Wapping	accidental death from drowning.
8	388	David Hodgson	-	-	-	1	fall between two ships	Ratcliffe	accidental death from drowning.
14	399	James Ferguson	-	-	-	1	fall from a ship	Shadwell	accidental death from drowning.
Dec. 8	425	male person unknown	1	found drowned	-	-	-	Ratcliffe	found drowned.
8	436	ditto	1	found drowned	-	-	-	Limehouse-hole, Poplar	found drowned.
		1834	31		3		20	= 54 Total.	
1835:									
Jan. 3	1	a male person	1	found drowned	-	-	-	Wapping	found drowned.
3	6	Thomas Wilson	-	-	-	1	accidental fall from wharf	St. Katharine	accidental death from drowning.
28	45	Gerdon Hampton	1	found drowned	-	-	-	Hermitage	found drowned.
Feb. 2	47	William Alder	-	-	-	1	fall from a barge	Shadwell	accidental death from drowning.
17	69	Joseph Hunt	-	-	-	1	fall from a ship	Shadwell	accidental death from drowning.
Mar. 3	78	Erasmus Anderson	1	found drowned	-	-	-	Shadwell	found drowned.
20	103	a male person	1	found drowned	-	-	-	Wapping	found drowned.
24	107	Francis Holmes	-	-	1	- - boat upset by a steamer running foul of other vessels.	-	Ratcliffe-cross Tier	accidental death from drowning.
April 6	120	William Tanner	1	found drowned	-	-	-	Wapping	found drowned.
15	125	male person unknown	1	found drowned	-	-	-	Folly-house, Blackwall	found drowned.
May 19	167	male person unknown	1	found drowned	-	-	-	Shadwell	found drowned.
23	173	Edmond Hilton	1	found drowned	-	-	-	Hermitage	found drowned.
June 12	194	Luder Nesserer	-	-	1	- - boat upset by rapid passage of steam-vessels.	-	Wapping	- - manslaughter against persons unknown, and strong expression of jury against rapid passage of steam-vessels in the Pool.
16	199	male person unknown	1	found drowned	-	-	-	Drunken Dock, Blackwall	found drowned.

(*continued*)

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(2.)—County of *Middlesex* (EASTERN DISTRICT), by *W. Baker*, Esq.—*continued.*

DATE.	Number of Inquests.	Number of Bodies and Names.	No.	Found Drowned, cause unknown.	No.	Accidents from Steam-boats.	No.	Other Accidents; Nature of Accident, whilst Navigating, &c.	Place of Accident.	VERDICTS.
1835:										
June 15	200	Henry Holland	-	-	1	- - fall from barge from rapid passage of steam-vessel causing a swell in the waters.	-	-	- - Alderman-stairs, Aldgate parish.	- - manslaughter against certain persons unknown.
16	204	Thomas Schleebacker	-	-	1	- - boat upset by rapid passage of three steam-vessels.	-	-	- - near West India Dock entrance, Poplar.	- - ditto.
18	208	Sarah Schleebacher	-	-	1	- - ditto	-	-	- - ditto	- - ditto.
18	209	John Evans	-	-	1	- - ditto	-	-	- - ditto	- - ditto.
18	210	Mary Evans	-	-	1	- - ditto	-	-	- - ditto	- - ditto.
30	223	John James Wray	1	found drowned	-	-	-	-	Wapping	found drowned.
July 1	227	Robert Long	-	-	-	-	1	fall from a ship	Shadwell	accidental death from drowning.
1	222	Robert Barker	-	-	-	-	1	fall from a ship	Shadwell	found drowned.
1	234	Joseph Eagles	1	found drowned	-	-	-	-	off East India Docks	found drowned.
6	237	James Prosser	-	-	-	-	1	fall from a boat	Shadwell	accidental death from drowning.
6	238	Thomas Pledge	-	-	-	-	1	fall from a boat	Billingsgate	accidentally drowned.
7	243	Henry Mearn	-	-	-	-	1	fall from a wharf	- - - Wheatsheaf-wharf, Wapping.	- - accidental death from a fall in the water.
17	256	William Dallen	-	-	-	-	1	fall from a boat	Blackfriars' Bridge	accidental death from drowning.
25	264	Richard Biddlecomb	1	found drowned	-	-	-	-	Wapping	found drowned.
Aug. 7	283	Edward Gray	-	-	-	-	1	fall from a boat	Radcliffe	accidental death from drowning.
24	304	George Scott	-	-	-	-	1	fall from a ship	Shadwell	- - accidental death from a fall and drowning.
Sept. 3	315	James Renny	1	found drowned	-	-	-	-	Limehouse	found drowned.
3	316	John Gray Rouse	-	-	-	-	1	from a boat sinking	Poplar	accidental death from drowning.
17	328	Margaret Anderson	1	found drowned	-	-	-	-	Poplar	found drowned.
Oct. 18	382	a female unknown	1	found drowned	-	-	-	-	Wapping	found drowned.
Nov. 19	427	John Flint	-	-	-	-	1	fall from a boat	St. Katharine	accidental death from drowning.
26	434	William Gritten	-	-	1	- - boat run down by steamboat's rapid passage.	-	-	Greenwich Point, Poplar	- - manslaughter against Robert Fairbairn, captain.
26	435	Richard Hallet	-	-	1	- - ditto	-	-	Greenwich Point, Poplar	- - ditto.
26	436	William Freeman	-	-	1	- - ditto	-	-	Greenwich Point, Poplar	- - ditto.
27	439	Henry Vaght	1	found drowned	-	-	-	-	- - - - -	found drowned.
30	443	male person unknown	1	found drowned	-	-	-	-	off Greenwich Hospital	found drowned.
Dec.	445	John Willima	-	-	-	-	1	fall from a boat	Blackwall	accidental death from drowning
		1835	17		10		14	= 41 Total.		

March, 1836.

Wm. Baker,
One of the Coroners for Middlesex.

No. 40.
Coroners' Inquests.

(3.)—County of *Middlesex* (London District), by *W. Payne*, Esq.

Persons Drowned or Found Drowned:

1834, February 4th, Rebecca Teasdel, drowned at the Custom-house, Yarmouth Tier. Verdict "Found drowned, but no evidence how she came into the water."
— March 31st, George Gallon, drowned at Billingsgate-stairs. Verdict "Found drowned, but no evidence how he came into the water."
— July 7th, John Robinson, drowned at Fresh-wharf, by missing his footing whilst in the act of landing from a boat. Verdict "Accidental."
— October 25th, Joseph Bayley, drowned at Custom-house Quay, whilst placing a plank from a vessel to the shore. Verdict "Accidental."
1835, March 21st, James Stodgell, drowned by falling from a vessel whilst stepping towards another vessel near the Custom-house. Verdict "Accidental."
— July 24th, William Oliver drowned near Billingsgate. Verdict, "Found drowned, but no evidence how he came into the water."
— August 3d, John Samuel Baker, drowned near Billingsgate. Verdict "Found drowned, but no evidence how he came into the water."

Persons Died in consequence of Accidents or Injuries sustained whilst Navigating:

— None. —

Those produced by the Effects of Steam-Navigation:

— None. —

Wm Payne, Coroner of London.

(4.)—County of *Surrey*, by *Richard Carter*, Esq.

30 Found dead and found drowned. No evidence to prove by what means.
1 Female destroyed herself by drowning.
34 All accidentally drowned by sinking of boats, falling out of boats, ships, vessels and from floating timber.
3 By walking into the river in a fog. "Accidentally."
8 Drowned whilst bathing. "Accidentally."
1 By walking in the river, being intoxicated. "Accidentally."
1 At Christchurch, by being thrown out of a barge in consequence of a bark running against the barge. "Accidental death."
1 At Rotherhithe, by the steam-vessel Comet striking against a boat. Verdict "Accidental death."
2 At Rotherhithe, by the steam-vessel Red Rover striking a boat. Verdict "Accidental death."
1 At Rotherhithe, by the steam-vessel City of Aberdeen striking a wherry. Verdict "Accidental death, with a deodand of 60 *l.* on the steam-vessel."
1 At Rotherhithe, by the steam-vessel John Bull striking against a sand-barge, which caused the mast of the barge to fall upon the head of the deceased, which killed him instantly. Verdict "Accidental death, with a deodand of 100 *l.* on the steam-vessel."

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Richard Carter, Coroner of Surrey.

(5.)—County of *Surrey*, Borough of *Southwark*, between the Parish of *St. John* and *London-Bridge* on the South Side of the River *Thames*, by *W. Payne*, Esq.

Persons Drowned or Found Drowned:

1834, March 24th, Jeremiah Sexton, drowned at Fenning's-wharf, London-bridge, by falling from a ship in a state of intoxication. Verdict "Accidental."
— September 8th, Thomas Hamlet, drowned near Horsleydown-stairs, by falling from a vessel in a state of intoxication. Verdict "Accidental."
— September 23d, William Eccles, drowned at Griffin's-wharf, Tooley-street, by falling from a ship's side whilst easing himself. Verdict "Accidental."
1835, January 30th, John Davies. Verdict "Found drowned near Pickle Herring-stairs, but no evidence how he came into the water."
— April 28th, Robert Kirkness. Verdict "Found drowned off Davis's-wharf, but no evidence how he came into the water."
— June 26th, John Guymore, drowned by falling out of a boat. Verdict "Accidental."
— November 3d, Timothy M'Carty, drowned near Griffin's-wharf, by slipping off a barge whilst helping to unload it. Verdict "Accidental."

Persons Died in consequence of Accidents or Injuries sustained whilst Navigating:

1834, September 27th, Philip Michielson, killed by a barge, which was navigating the river at Cherry Gardens, striking against the rudder of the vessel on the deck of which the deceased was standing, and causing the tiller of the rudder to strike him on the body. Verdict "Accidental."
— December 11th, William Robinson, drowned at Fenning's-wharf, whilst shifting a boat at a ship's side in the night time. Verdict "Accidental."
1835. January 3d, John Davis, drowned by falling from a lighter, whilst pushing it off from a schooner at Topping's-wharf. Verdict "Accidental."
— September 14th, Joseph Henry Sherwood, drowned near Pickle Herring-wharf, by falling out of a boat whilst pushing it off from a larger vessel. Verdict "Accidental."
— November 24th, Robert Veyne, killed by the boom of a vessel falling on his head, in consequence of a tier breaking adrift at Pickle Herring-chain. Verdict "Accidental."

Those produced by the Effects of Steam-Navigation:

— None. —

Wm Payne, Coroner of Southwark.

No. 40.
Coroner's Inquests.

(6.)—County of *Essex*, by *C. C. Lewis*, Esq.

	NAME.	PARISH.	VERDICT.
1834:			
Feb. 24	man unknown	West Thurrock	found drowned.
May 15	man unknown	Corringham	found drowned.
— 7	man unknown	Dagenham	found drowned.
June 23	William Tart	Grays	accidental death.
	This person was 10 years of age. It was not exactly ascertained how he became drowned; but it was supposed he fell from the side of the wharf.		
July 7	man unknown	Purfleet	found drowned.
Sept. 3	man unknown	Barking	found drowned.
— 3	Edwin Calf	Barking	accidental death.
	This person was seen over the side of the boat in which he had been rowing, and before assistance could reach him he was drowned.		
1835:			
March 16	man unknown	West Thurrock	found drowned.
June 23	William Cuthill	West Thurrock	found drowned.

I am not aware of any accident from the effects of steam navigation within my jurisdiction.

Brentwood,
3 March 1836.

C. C. Lewis,
Coroner for Essex.

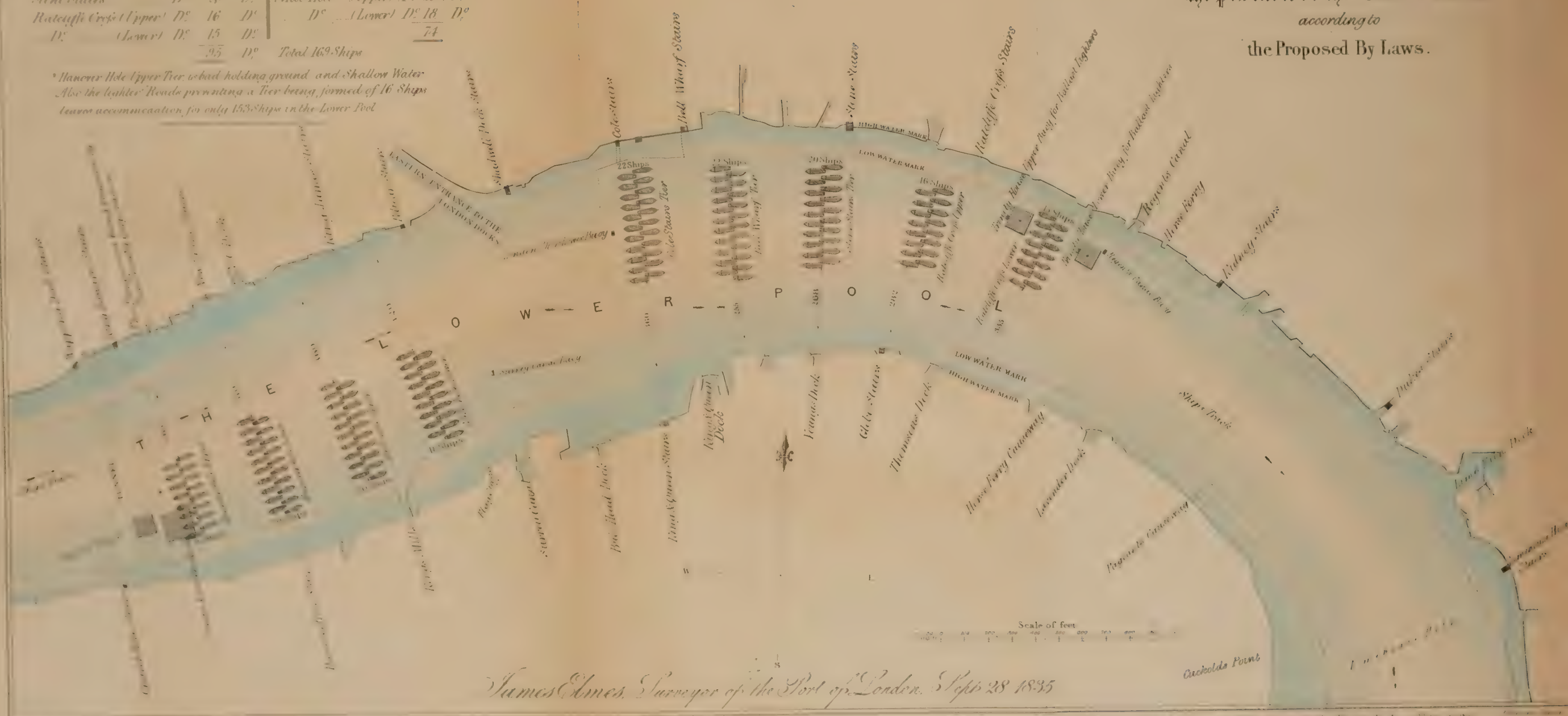
Plan
OF THE RIVER THAMES FROM
Church Hole to Cuckold's Pond.
shewing
the Position of the Collier Tiers.
according to
the Proposed By Laws.

REFERENCE.

TIERS.

NORTH SIDE				SOUTH SIDE.			
Cole Stairs	Tier	22	Ships	*Hanover Hole	(Upper) Tier	16	Ships.
Bell Wharf	Do	22	Do	Do	(Lower) Do	20	Do
Stone Stairs	Do	20	Do	Mill Hole	(Upper) Do	20	Do
Ratcliffe Cross	(Upper) Do	16	Do	Do	(Lower) Do	18	Do
Do	(Lower) Do	15	Do			74	
		95	Do	Total 169 Ships			

*Hanover Hole Upper Tier is bad holding ground and Shallow Water
Also the lighter Roads prevents a Tier being formed of 16 Ships
leaves accommodation for only 153 Ships in the Lower Pool



James Elmes, Surveyor of the Port of London. Sept 28 1835

Ordered by the House of Commons to be Printed Aug 12 1836

Plan
OF THE RIVER THAMES FROM
Church Hole to Cuckolds Point,

shewing

the Position of the Collier Tiers.

according to the
Proposed Permanent Moorings.
BY
CHARLES ROWLAND
HARBOUR MASTER, 1836.

REFERENCE.

TIERS

SIDE			SOUTH SIDE.				
Tier	20	Ships	Church hole		Tier	16	Ships.
D°	20	D°	*Hanover hole	(Upper)	D°	18	D°
D°	17	D°	D°	(Lower)	D°	18	D°
D°	14	D°	Mill hole	(Upper)	D°	18	D°
D°	12	D°	D°	(Lower)	D°	16	D°
	83	D° Total 169 Ships.				86	

tier is Shallow Water. Also the tighter Roads
ng formed of 18 Ships leaves accommodation
the Lower tier unless the said place is deepened
ed

NORTH

Cole Stairs
Bell Wharf -
Stone Stairs
Ratcliffe Cross (Upper)
D.° (Lower)

* *Hanover hole (Upper*
preventing a Tier be
for only 151 Ships in
and Roads remov

REFERENCE.

TIERS

NORTH SIDE				SOUTH SIDE.				
Gas Stairs	Tier	20	Ships	Church hole	Tier	16	Ships.	
Bell Wharf	D°	20	D°	Hanover hole (Upper)	D°	18	D°	
Stone Stairs	D°	17	D°	D° (Lower)	D°	18	D°	
Ratcliffe Cross (Upper)	D°	14	D°	Mill hole (Upper)	D°	18	D°	
D° (Lower)	D°	12	D°	D° (Lower)	D°	16	D°	
	83	D°	Total 169 Ships.			86		

* Hanover hole Upper Tier, is Shallow Water Also the lighter "Roads" preventing a Tier being formed of 18 Ships, leaves accommodation for only 131 Ships in the Lower Pool, unless the said place is deepened and Roads removed

Plan
OF THE RIVER THAMES FROM
Church Hole to Cuckolds Point,
shewing
the Position of the Collier Tiers,
according to the
Proposed Permanent Moorings,
BY
CHARLES ROWLAND
HARBOUR MASTER, 1836.

The Tiers are Arranged upon a Ground Plan by James Elmes, Surveyor of the Port of London. Sept.r 28. 1836

577. Ordered by the House of Commons to be Printed, 12th August 1836.
J. Board Sc.
James & Luke G. Hansard & Sons, Printers

1835

PLAN

For mooring 163 Colliers in the Pools, preserving a passage for the transit of Shipping of the width of 300 feet, presented to the Port of London Committee

BY SIR JOHN HALL, K.C.B.

This Plan was substituted for one recommending that the tiers of Colliers in the Lower Pool should be removed to the South shore, but withdrawn in consequence of certain differences of opinion. No more than 18 Colliers should be permitted to be moored in a tier; if the number be exceeded a sufficient Passage cannot be preserved. Twenty five feet in width have been allowed to each Collier, being the practical occupation when in tiers, including range and Sheer. The proposed mooring craft regulates the Stations of the tiers, marks the boundary line, and will afford great convenience and security to Ships in their passage through the Pools, and to Colliers sheering into their berths. means will thus be provided for making fast a rope, without the risk of having it cut. Provision is made for an inshore passage of 50 feet in Width.

NB. The Low Water Marks of 1806 are those exhibited on the Plan of the Port Committee
Those of 1830 are the Surveys made under the authority of the Admiralty

1835.

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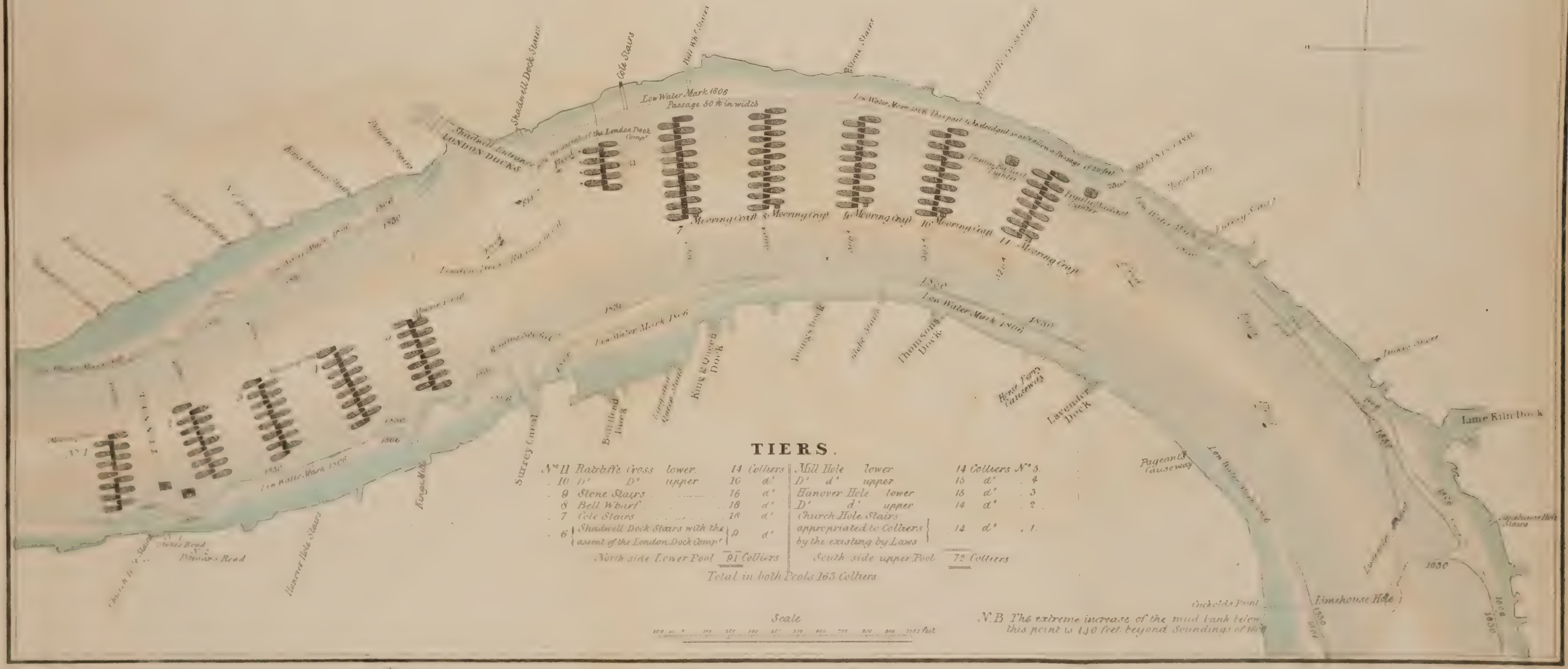


TIERS.

N° 11	Ratcliffe Cross	lower	14	Colliers	Mill Hole	lower	14 Colliers N° 5.
10	D°	upper	16	d°	D°	d° upper	15 d° 4
9	Stone Stairs		16	d°	Hanover Hole	lower	15 d° 3
8	Bell Wharf		18	d°	D°	d° upper	14 d° 2
7	Cole Stairs		18	d°	Church Hole Stairs appropriated to Colliers by the existing by Laws		12 d° 1
6	Shadwell Dock Stairs with the assent of the London Dock Comp.ª		9	d°			
	North side Lower Pool		91	Colliers	South side upper Pool		72 Colliers

Total in both Pools 163 Colliers

Scale

N.B The extreme increase of the mud bank below this point is 450 feet beyond Soundings of 1806

J. Basire lithog

557. Ordered by the House of Commons to be Printed, Aug 12 1836.

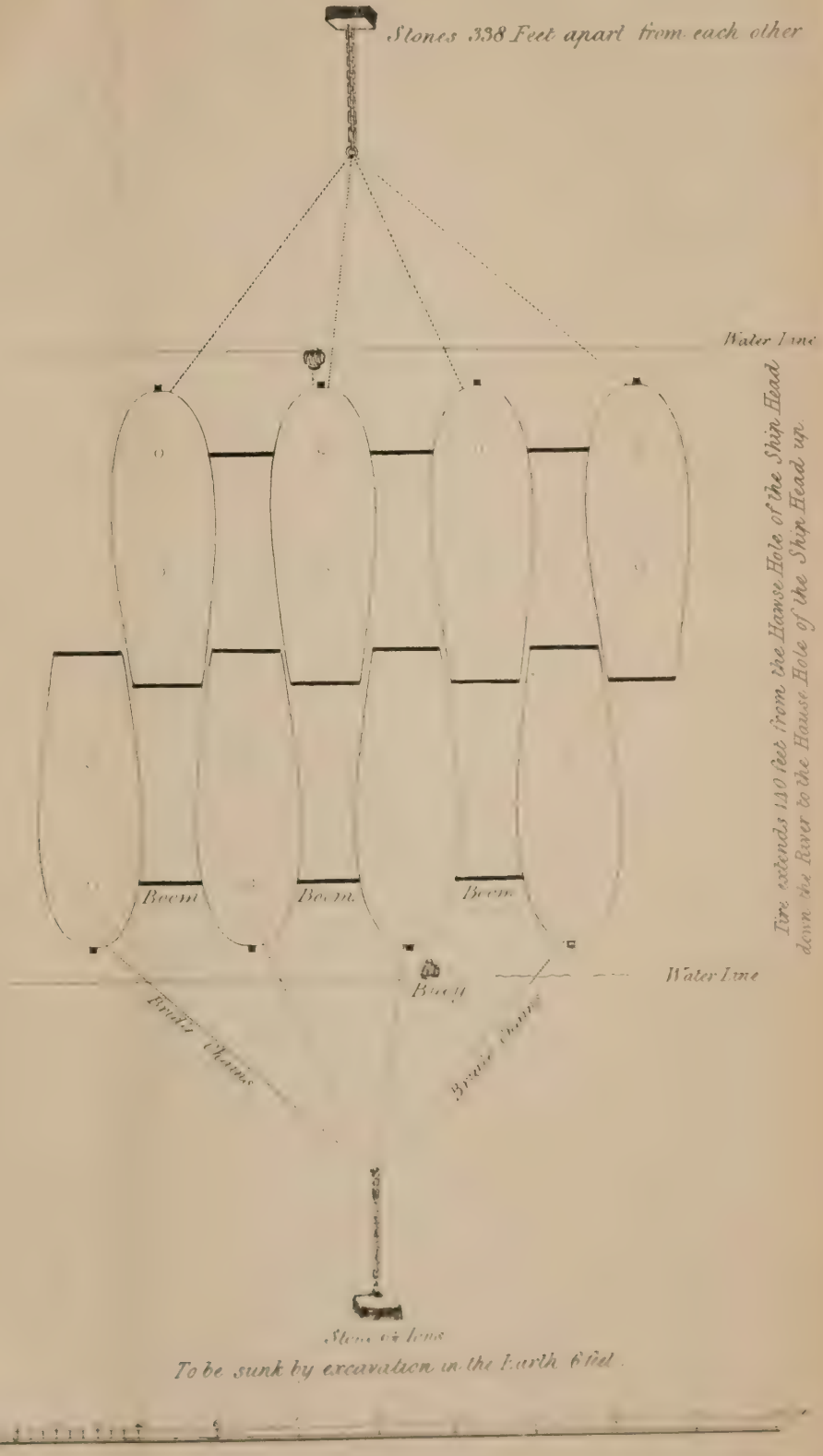
Thomas E. Hansard, Printer

No 1.

PLAN

For Mooring Colliers in the Lower Pool

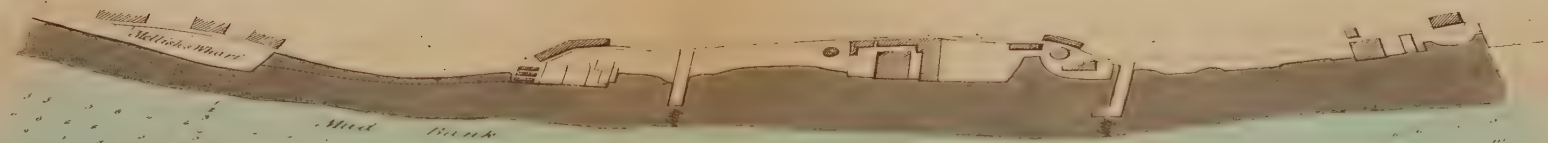
A Half Tier.


Stones 338 Feet apart from each other
Water Line
Fire extends 190 feet from the Hause Hole of the Ship Head down the River to the House Hole of the Ship Head up
Boom
Boom
Boom
Buoy
Water Line
Bridle Chains
Bridle Chains
To be sunk by excavation in the Earth 6 feet

Harbour Master, Port of London
1836

Ordered by the House of Commons to be Printed Aug 12 1836

SOUNDINGS OF THE RIVER
opposite the
KING'S DOCK YARD,
DEPTFORD,
1831.
BY CAPTN BULLOCK.



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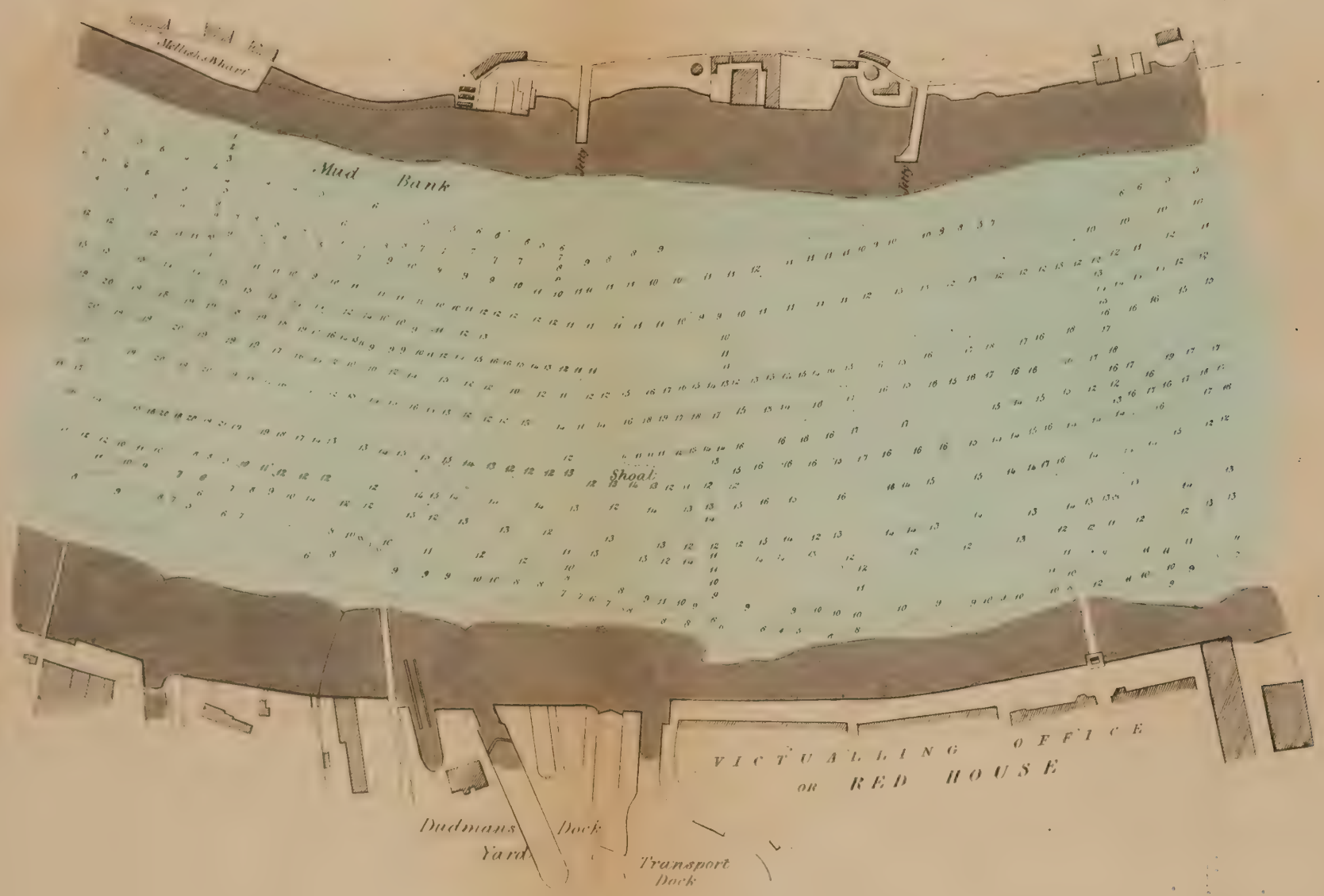
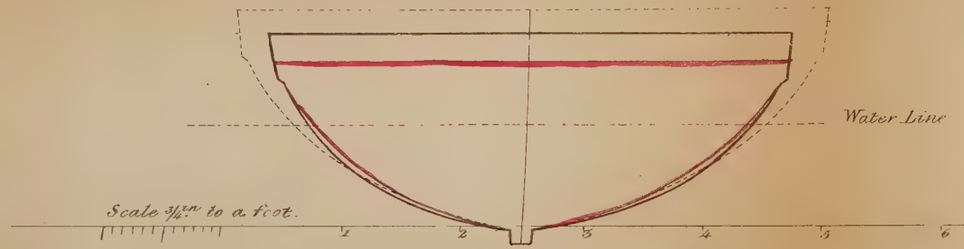


SCALE.

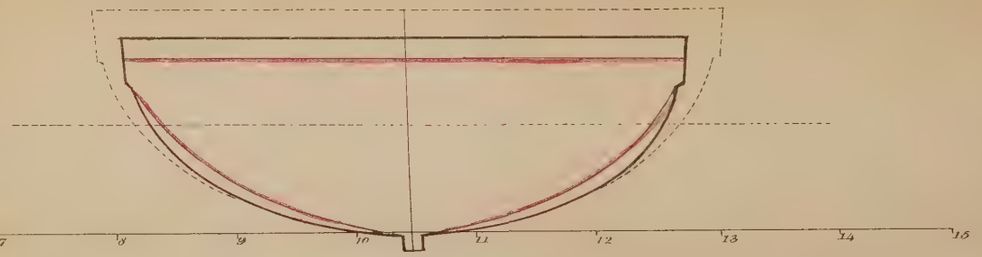
Ordered by the House of Commons to be Printed Aug 12 1836

PLAN of WHERRY.

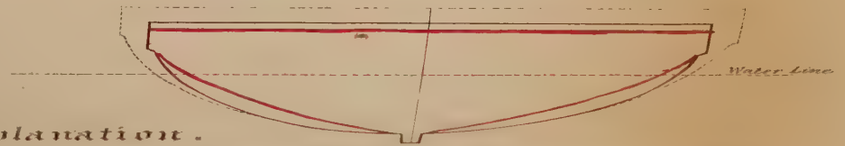
FORE SIDE OF BACK BOARD THWART.



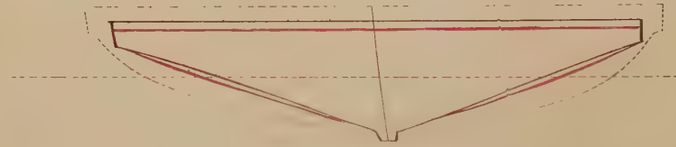
MIDDLE OF STATE ROOM.



FORE SIDE OF MAIN THWART.



FORE SIDE OF SPRAY THWART.



Explanation.

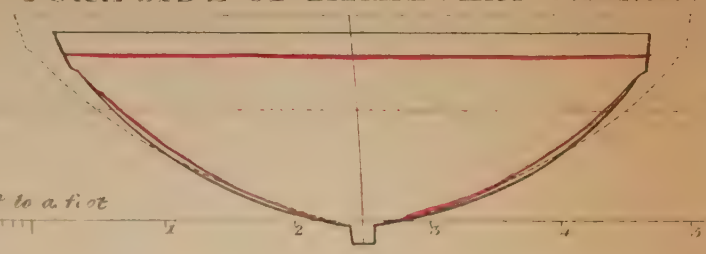
The Dotted Line ... Wherry proposed by Watermans Company
Black Line ... Do " " by } London Tavern Committee of Merchants &c
Red Line ... A full sized Common Wherry } Bramleys Ship Owners Coal Meggers &c

A SQUARE STERNED WHERRY

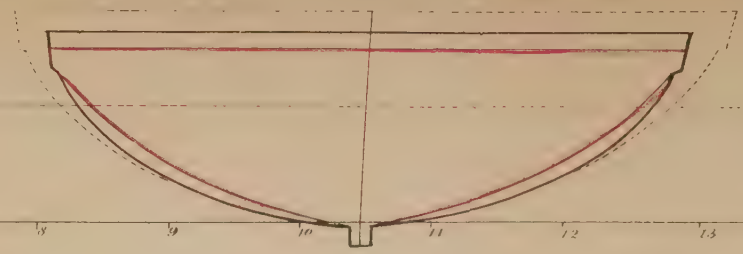
Length extreme	25'. 6"
Do of Keel	18 "
Breadth	4 . 9
Depth	1 . 9
Do over Washstrake	2 "

PLAN of WHERRY.

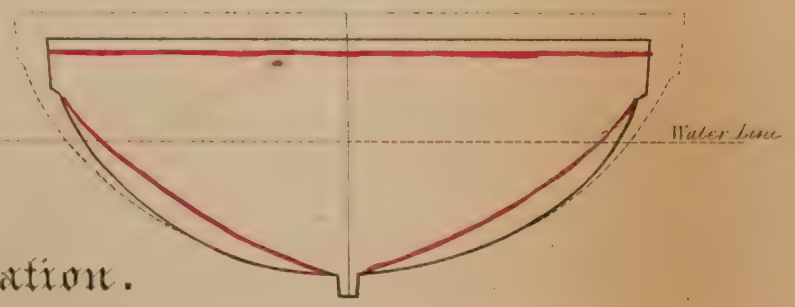
FORE SIDE OF BACK BOARD THWART.



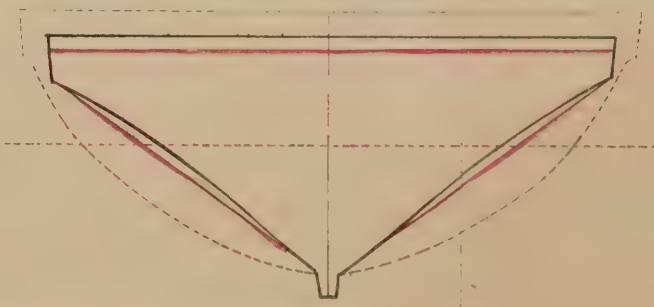
MIDDLE OF STATE ROOM.



FORE SIDE OF MAIN THWART.



FORE SIDE OF SPRAY THWART.



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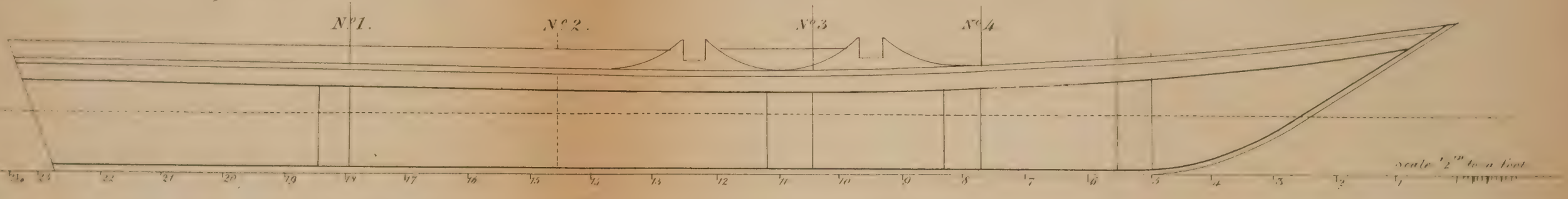

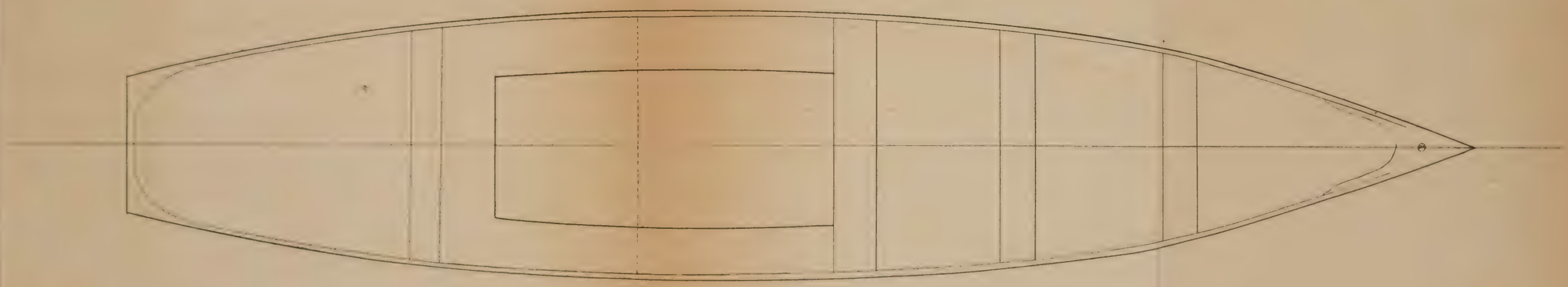

o 51.

Ordered by the House of Commons to be Printed 1836